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THE
FARMER & GARDENER,

CONTAINING

ORIGINAL ESSAYS AND COMMUNICATIONS,

ON

AGRICULTURE, HORTICULTURE,

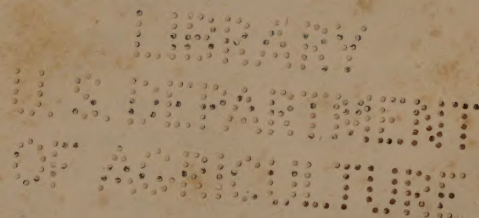
RURAL AND DOMESTIC ECONOMY, &c.

VOL. III.

Baltimore :

PRINTED BY SANDS & NEILSON.

1836-37



THE

FAIRBANKS & CO. EXHIBITION

CONTAINING

ORIGINAL TESTS AND COMMUNICATIONS

OF

EXHIBITION OF AGRICULTURE



RURAL AND DOMESTIC ECONOMY, ETC.

VOLUME

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THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 1.

BALTIMORE, MD. MAY 3, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 3, 1836.

We acknowledge with pleasure a very excellent communication from the highly intelligent manager of Brookland Woods, upon the subject of the culture of the *Ruta Baga*. We shall give it next week, and take this occasion to say in advance, that his paper will be read with profound interest by all who have capacity and feeling to appreciate the value to the community of what he has written.

THE DAHLIA.

We would again remind the admirers of this splendid ornament of the garden, that this is the period for planting them. There is certainly nothing of the flower kind which for brilliancy of color and magnificence of effect can compare with it. And it is a little flattering to the pride of American florists that they have brought them to a much higher degree of perfection during the short period they have been cultivated here than they have been in Europe. The facility with which they may be cultivated should render them a favorite, nothing more being necessary than to place them in a rich moist loam, well manured, when they will grow with the greatest luxuriance, nothing else being necessary than to keep them clean, and watered in dry seasons.

WORK FOR MAY.

We remarked in our last month's work, that, in consequence of the protracted cold weather, much of the labor usually performed on the farm and in the garden in the month of March, had been thrown upon April, and that, therefore, its toils and cares were multiplied; what we then said with regard to that month is doubly applicable to the present one. In times that are gone, the month of March was always looked forward to, to bring with it winds at once piercing and cold. But though they whistled past one's ears with a shrewdness that penetrated the very epidermis itself, there

were intervening days of delightful weather. The past season of winter, and the spring thus far, has defied all human calculation, and if either were capable of personification, it might exclaim with the hump-back tyrant, "I am myself alone." For of a certainty, no former year within the memory of man, has given birth to a winter or spring so cheerless, so inauspicious to vegetation, and withal so forbidding in prospect. March was a month of snow and ice, and though April in this part of our extensive country and varied climate, has been somewhat more moderate, yet there were but few days in it that the husbandman could, as they say in law, without let or molestation, penetrate his soil; all the earlier portion of it being taken up in snows, cold rains, and weather generally too inhospitable for the operations of agriculture.

Thus circumstanced, farmers and planters find that *May*, which in the language of poetry has been termed the month of flowers, is one rather of thorns to all such as look upon labor as a matter of trouble, for verily much of the business of *March* and *April* has been, by the force of circumstances, cast upon this hitherto favorite of *Flora*, and these among us who are ambitious of not being belated, will have to bestir ourselves to get one-half of what we ought to have done executed in time. Now let us turn to particulars.

ON THE FARM.

Corn. As soon as possible you should get your corn into the ground, if you have not already planted. But let us admonish you, that if you wish to make a good crop, you must manure well; for it is utterly useless to attempt to make a crop of which you can be proud, without you put into the soil nutriment whereon the plant may feed.

Irish Potatoes. This crop which gives so much solid comfort to both man and beast—which imparts so much the aspect of plenty to the humble domicile of the poor, and the splendid homestead of the rich, and which above all others of the root tribe, contributes towards the sustenance of humanity, should now be attended to. And if good crops are expected, manure must be liberally applied.

Carrots, Parsnips and Beets should be forth-

with sown. The ground should be well manured, ploughed deep, and thoroughly pulverised. With these pains being taken, we will promise a crop of each that will more than remunerate for all the trouble of cultivation.

Pumpkins. Plant your pumpkins. If you design to raise them in your corn-field, plant them at a distance of 12 feet apart, taking care to give an extra dose of manure to the hill in which you place them. In ploughing your corn let a little boy, if the vines have commenced running, go in advance of your plough, and turn them on the opposite side. If you plant a patch of them by themselves, they may be placed in hills 8 or 10 feet apart; the hills of course to be generously supplied with manure.

Millet. This excellent grain and grass, (for it partakes of both qualities,) may be sown this month, though its sowing may without injury be left over until the month of June; if it be intended for *hay alone*, a very profitable crop might be made from sowing it in July; and, indeed, if the fall be a long one, the seed may be ripened after that period.

We would repeat, if you have not sufficient grass lands laid down to furnish you with hay during the next winter, sow *millet*; it makes an excellent and well relished hay—and if you would desire to carry your providence still farther, and lay the foundation of a supply of hay for your stock, ensuing years, sow clover with oats, millet and buckwheat.

Sweet Potatoes. This delicious vegetable should now be planted. They require sandy soil, warm situation and rich land. The easiest method of raising them is in hills two feet apart, to be manured with a compost consisting of vegetable mould from the woods, cow-dung, and ashes. The only art or mystery about their growth, is this, they must be kept clear until the plant so shades the hill as to protect itself from those impudent obtruders called weeds.

Water-melons, Canteloupes and Musk-melons, should all be planted in hills thoroughly pulverized and manured.

Peas and Beans, must now be planted.

Buckwheat. This essential accompaniment of the winter breakfast, should be sown about the middle of this month.

Cæsarean Kale or cow Cabbage.—If you desire your cows to have a plentiful supply of succulent food during fall, sow seed enough to enable you to plant an acre or two of this most excellent vegetable. There is hardly any thing of the vegetable family that can be put upon an acre, which will afford so much provender, or increase the supplies of milk so plenteously.

Let your clover fields receive the benefit of having a bushel of plaster of Paris sown on them to the acre, and be sure that you do not for some weeks yet, if you can possibly avoid it, let your cattle run upon your grass lands: upon those intended for hay they should not be suffered to tread their hoofs at any time.

IN THE KITCHEN GARDEN.

Squashes, water melons, canteloupes, muskmelons, cucumbers, peas, beans, tomatoes, peppers, sweet potatoes, early corn, cabbages, radishes, borecole, Brussels sprouts, lettuce, onions, spinach, carrots, parsnips, early turnips, egg plants, endive, okra nasturtiums, pot-herbs, and all other garden vegetables may now be sown with advantage.

IN THE FLOWER GARDEN.

Almost all pot flowers should now be repotted; the application to the roots of flowers, which have been a year in the same soil, of fresh earth must be made; and, to us it appears evident that there is no time so proper as the spring, when from the genial heat of the sun and temperature of the weather, the sap mounts and nature is wont to sport with its powers of life.

As early in this month as possible you should sow all your hardy annuals.

If you have not already planted your *Dahlias*, *Amaryllis*, and *Tuberoses*, you must not delay another day in doing so. No one who has a taste for the beauties of Flora, should omit to plant some of each, and unless they desire to be read out of the books of *fashion* altogether, they should not omit to put down a dozen or two of the bulbs of the beautiful *Dahlia*—even a dozen of bulbs, selected with taste and judgment, would afford a most excellent bloom, and be sufficiently various in hue to impart interest and pleasure to the beholder—and what lady or gentleman would be without a collection of this exquisitely beautiful flower? Surely no one who can look with pride and gratitude upon the thrice lovely works of nature, and trace in his mind's eye the immense magnitude of that Great first cause, to whose infinite bounty and wisdom man is and ever will be indebted for all present and future enjoyment.

[Communicated for the Farmer & Gardener.]

A PRODUCTIVE FIELD—VALUE OF A ROTATION OF CROPS, AND THE EFFICACY OF LIME.

Mr. Roberts—According to your request, I inform you that in the fall of 1832, I hauled 90 loads of manure on a field containing 15 acres, which had been previously laid in with clover; the following spring I ploughed and planted corn and raised 80 bushels to the acre: in the spring of 1834, I seeded it with glade oats and raised 100 bushels to the acre, and in the fall I manured it again, and seeded the same land with wheat, and raised 35 bushels to the acre; and at present have in it a crop of rye, and the prospect bids very fair.

[The above facts were communicated to us by an enterprising and intelligent farmer of Lancaster county, Pennsylvania, who assured us that the field was a sandy loam, and by no means what, with him, is called good land. The facts as disclosed are highly important, and show with great force, first, the value of clover as an improver of the soil, and secondly, the virtue of a rotation of crops. These premises we will endeavor to illustrate and make plain. The *loads* here spoken of were drawn in a large four ox-wagon, and would make about 12 double horse carts of manure to the acre, which was by no means a heavy dosing; but on the contrary, much less than the customary quantity used by those farmers who are frugal in husbanding their manuring resources. The reader will bear in mind that but 12 double cart loads of alimentary matter have been put upon this field for the last four years, and notwithstanding this absence of annual improving, the field has made prolific yields of produce. Why has this abundant production resulted? Because, in the first instance, a good foundation was laid in providing a clover-ley, and secondly, because a wholesome dressing of manure was given to the first crop in the rotation. The oat-stubble and weeds being ploughed in supplied the wheat with a vegetable body of manure, and thus one crop was made to impart sustenance to the other, and keep up that healthful action in the soil which is so essential to all subsequent vegetation. Should not this example stimulate farmers generally to make proper exertions to provide themselves with a *clover-ley* to plough in, and while they are thus providing the certain means of resuscitation for their fields, if they be labouring under a state of exhaustion, let them procure a top-dressing of lime, marl or calcareous earth; we do not mean to prescribe the maximum quantity of most intelligent farmers, 100 bushels to the acre, much less to enforce the propriety of applying the more exorbitant quantity of 500 bushels to the acre,

as spoken of by many gentlemen of science in Europe and America, and as practiced upon heretofore by English agriculturists. The precise *action* or *modus operandi* of lime is even now a question among the enlightened writers upon the subject, and it is still a mooted point, whether it be of *itself* manure, or the agent of converting vegetable or alimentary material into manure. The more enlightened opinion, however, appears to be that the *specific virtue* exerted by it, is, that of *stimulation*—that is, that it acts on any vegetable matter with which it may come in contact, in the same manner as pepper, mustard, salt, &c. thrown into the human stomach—as an assistant of the digestive organs. To us then, it appears evident, that if lime in its several forms be merely *stimulative*, a much less quantity than is usually applied, will answer. If it be *stimulative* only, its efficacy consists in the conversion of vegetable matter into a proper consistence to be taken up as food by the plants, and if that be its *office*, only such quantity is needed as may be required to effect the particular service required, and all over and above that point, which may be applied, is but a waste of means for the time being. **M. Puvion**, who is certainly one of the most intelligent writers upon the virtues of lime, contends that 25 bushels to the acre *at a time*, is amply sufficient for all practical purposes. If this hypothesis be well founded, there can be no question that every bushel above that quantity which may be applied is a useless expenditure of means, without producing the least present profit to the agriculturist or immediate benefit to his soil. It may be remarked that when once put on the soil, it will remain there to perform its office in after years; but then if so much less will answer all present purposes, we would ask, why apply the larger quantity? There can certainly be no use in throwing a costly material on the soil, if it is to remain in a state of *inertia* for a series of years,—only acting each season to a certain extent,—that is, gradually exerting its powers of decomposition as vegetable matter may be annually given to it to exercise its chemical operations upon. We have deemed it our duty to throw out these ideas, because we honestly entertain the opinion, that lime is but a *stimulant*, and that as such, it can only act to a prescribed limit, and when it converts whatever vegetable matter which may be thrown upon the soil into a state of nutrition, its *office* for the season is at an end—that its efficacy *then* ceases until other alimentary substances are given to it.

Lime we all know is to most farmers a costly material, and to many, in the quantities hereto-

fore used per acre, the obtainment of it has remained an impracticable thing. If then one-fourth the usual quantity will answer, its benefits must, most certainly, be extended to a much greater number of persons, and a much greater extent of territory receive the good effects of its meliorating properties. In urging these remarks, we do not wish to be understood as in the least encouraging the opinion that lime is not as powerful an agent as its warmest friends have represented it; for, on the contrary, we hold it as of a truth, that no system of husbandry which does not look to the use of calcareous earths can be perfect—that no exhausted lands can be restored to a condition beyond its original fertility, without the application of lime in one form or another. We all know that the turning in of clover and other vegetable-leys, and the free use of manures, will bring up the poorest lands to a state of tilth both healthful and profitable; but the opinion has been advanced by one of the most enlightened agricultural writers, that soil cannot be carried beyond its original fertility without the use of calcareous manures, and we coincide in that opinion. The belief that we would wish to inculcate is, that a much less quantity of lime than that generally supposed will answer, and we do this with the hope that it may encourage farmers who have not heretofore used it, to introduce it into their respective systems of husbandry.

NEW METHOD OF SETTING TIMOTHY—PROPERTIES OF MILLET.

We have been politely furnished with the following communication, from Col. *Thomas Hillen*, of whom it is but faint praise to say, he is one of the best farmers in the country. His successful experiment in setting a field of timothy, on a millet-stubble, is worthy of all consideration, as the expense thereof is much more than paid for by the crop of millet hay and seed. We are highly gratified in finding an agriculturist of Col. Hillen's well established reputation, departing from the old beaten track of other days, and striking out upon an enlightened and judicious experiment, one which while it attracts our attention by its novelty, wins upon our confidence by its common sense.

To the Editor of the Farmer and Gardener:—

SIR—Pursuant to promise I herewith transmit to you my late experience in setting my timothy meadows.

As the stirring and keeping the ground clean of weeds and grass all summer until August or September, (the sowing time,) created much labor, merely in anticipation of future pro-

fit—I therefore, used to set my timothy either with *turnips*, or sow it in *corn-ground*. In the former case, either one crop, or both seldom failed to suffer in the *partnership* account; and moreover it is difficult to form a *good bottom* for the scythe in *corn-ground*. Under these considerations, I last year conceived a different plan, and one which I think more *immediately advantageous*. Having several pieces of low-land which I wished to sow in timothy, I broke up the ground late in the fall, and in the spring (*when dry enough*) harrowed it, and several times run my drags (or cultivators) through it, until about the first of June, in order to kill the grass, weeds, &c. I then sowed it in *millet*, I think about 3 pecks or 1 bush. to the acre; harrowed, bushed it in, and rolled it. The result was a good crop of millet which amply paid me for the preparation of the ground. When I took the millet off, I think about the last of August, I sowed it down in timothy on the millet stubble,* which now appears *very promising*, and I have no doubt, if a good season, will yield a good crop. One advantage in the millet, is, that it possesses a quality peculiar to itself, and differing from every other grass, or plant with which I am acquainted:—To wit, when the seed is quite *ripe enough* for sowing, or any other purpose to which it is ever applied, the stalks and blades are sufficiently green and nutritive for the best provender for either cattle or horses, and they are very fond of it. Where the millet was very rank, I reaped off the heads as I would timothy seed before I mowed it, in order that I might not have too much *BULK* to thrash, to get out the seed; still, there was so much *short millet* left, after *reaping off the tall heads*, as to justify the treading the whole bulk (*which is soon done*) on a barn floor. This has also the good tendency of softening the *larger stalks* of the millet for the cattle. In all cases, like all other provender, it should always be well dried when put in bulk. Those who are disposed to try the millet, must not be discouraged by its *mean and irregular* appearance for the first two or three weeks; after which, *if the ground is rich*, it will show itself, and in about 60 or 70 days after sowing, will arrive at perfection.

I have now, sir, agreeably to promise, given you a history of my millet experience, *root and branch*. If you have a vacant corner in either your farm or your garden lot, you may sow it for your own use.

With sentiments of much respect, sir, I remain your humble servant,

THOMAS HILLEN.

April 26th, 1836.

*Timothy does not require to be sown in a *loose, or fresh stirred soil*. We all know that wherever a load of hay is upset on the *public road*, the first succeeding rain exhibits a timothy meadow on the spot.

SUFFERING & MORTALITY AMONG STOCK.

Scarcity of Hay.—We regret to hear that a scarcity of hay is beginning to be severely felt in many of the towns in this county—particularly in the hill towns west of us. Many farmers have scarcely a lock of hay left, and are unable

to procure it except at exorbitant prices. Meantime their stock is suffering extremely. A farmer in Heath, we understand lost 5 cows last week from absolute starvation, and a farmer in another town upwards of twenty sheep from the same cause,—the depth of the snow preventing their going into the woods to browse. We have heard of one or two instances where farmers have offered their cows at \$5, and sheep for their fleeces, when sheared, and been unable to dispose of them, even at that rate.—*Greensfield, Mass. Mercury*.

Dismal prospects for Farmers.—It is stated in the Newburgh Gazette, that hundreds of cattle are dying in Orange county from the want of feed, and the unexampled severity of the winter and spring. It is estimated that one-tenth of all the cattle and sheep of Orange county, had perished previous to the deep snow of the 22d ult. which must greatly increase the distress of the farmers. The average depth of snow and ice is now stated to be about 3 feet over the whole country, and there can be no prospect of any grazing until May. In the mean time, the stock of hay and grain has been distributed, until few farmers have retained sufficient to last until the middle of April.

We publish the preceding paragraphs to show the improvidence which has exposed those noble animals to the misery of starvation and death. We are fully aware that the long and protracted winter which has scarcely yet left us, has necessarily subjected many provident farmers to those inconveniences which result from calculations defeated by circumstances over which we can exercise no preventive agency; but although we are willing to allow the full force of this apology, we do think and are compelled by a sense of candor to say that much of this suffering might have been obviated had proper attention been paid last year to the culture of grass and the growing of roots.

Since the above was written we have received the Northampton (Mas.) Courier by which we perceive that the same scarcity prevails in that quarter. These things should not be; no farmer should keep a larger stock than he can keep well. Interest, as well as humanity, alike dictate the adoption of this course, and we think the excuse utterly futile which is built upon the affirmation, that the party did not think the winter would be so long. A prudent husbandman should always provide himself with sufficient provender to meet every contingency of a prolonged winter. This may be done by a careful looking ahead, and a timely resort to the sowing of proper grain for hay, and planting of roots in seasons where there are light crops of grass. If the clover or timothy, herd's grass, and orchard grass, or natural meadows, fail or appear likely to fail, immediate resort to the sowing of corn broadcast, or millet should be

had, and roots of all seasonable sorts should be sown. This may give a little trouble, but it is a trouble demanded of us by our duty and must be undergone.

ORNAMENTAL PLANTS.

We have selected the following brief descriptions from the (English) Horticultural Register, chiefly copied or abridged however, from the accounts in other British publications. We believe all those plants are rare, or of recent introduction into England, and we should be gratified to hear of their arrival on our shores.—*Genesee Farmer*.

Iris bicolor.

"This is one of the gayest of this beautiful tribe of plants. It is treated as a half-hardy, and planted during the summer, on a north aspect, where it greatly flourishes. Its origin is unknown."

Schizanthus Hookeri.

"A biennial that deserves a place in any garden; it was brought to this country by Dr. Gillies; and its flowers are of a rose color with a flame of bright yellow."

Argemone grandiflora.

"This is a hardy perennial, introduced from Mexico by Mr. Barclay. Its blossoms are of a delicate white, showy, and well worth cultivating."

Dictamnus angustifolius.

"This is a very interesting plant. The flowers resemble *D'Fraxinella* in color, but are more tinted with purple. It is growing in the open border. The seed was sent by Dr. Fischer, and is believed to be a native of Siberia. It succeeds well in a light rich mould. When rubbed, it has a scent like lemon-peel. If a lighted candle be put under the leaves of the plant in dry weather, on a dark night, the small resinous glands with which it is covered will emit flames."

Tulipa repens.

"A rare and beautiful species of a bright yellow color. It was received several years ago by Mr. Anderson from Dr. Fischer, curator of the Botanic Garden, St. Petersburg."

Crocus Imperatii.

"A very handsome early spring-flowering bulb, of a purple color, and is well worth a place in any collection."

Berberis dulcis.

"This plant was collected at the straits of Magellan; the fruit is there used as gooseberries, both green and ripe, for making pies and tarts, &c., for which it is most excellent. The berries are black, and the size of black currants, and are produced in abundance. The blossoms are of a bright yellow color, and make a very elegant appearance. It will form a very valuable addition to our gardens, as it will, doubtless, be quite hardy."

Rosa Wellingtoni.—Duke of Wellington Rose.

"This beautiful hybrid was raised from the seed of *Rosa indica*, fertilized by the pollen of *Rosa damasdonia*. Its color is a rich dark red, and there is scarcely a more splendid rose grown, for its abundance of flowers all through the summer is scarcely to be equalled."

Cabbage tree of Lapland.

"M. Garnier of Auxonne, has received from the nursery of Lyons, 20 seeds of this cabbage,

which is said to be entirely different from the *Chou cavalier*, the ruta бага, or the common cabbage of Lapland. Garnier says it thrives better [in France] and puts forth more shoots, the more bitter the cold is. Its leaves are rather more than a foot long. In the second year it attains the height of 4 to 5 feet; top branching, flowers yellow and streaked. It produces three times as much seed as other oleaginous plants, and in winter affords considerable forage."

[From the Farmers' Register.]

ON THE CULTIVATION OF CORN.

Fully convinced as I am that much more labor than necessary is usually expended on the culture of the corn crop, I yet offer the following remarks on that subject with great diffidence.—Early and deep fallowing, particularly on stiff soils, is deemed essential, even where a second ploughing is rendered necessary by application of manure in the spring. In every process on my farm, it is my object to substitute as far as practicable the use of horse power for manual labor; and in subservience to this rule, after the whole surface has been previously well harrowed in in the spring, and my corn land is laid off in checks; where the land is dry enough to admit of this sort of culture. With a view to the same subject (the saving of manual labor,) a great distance is allowed, and two stalks are left in a station where the strength of the land is sufficient to bear it. This you observe greatly diminishes the hoe work. We use seed without stint, dropping from six to eight grains in a place where one stalk is to be left, and from ten to twelve where we design to have two. The object is to insure an even crop. We use a variety of small ploughs, but indefinitely more depends on the execution of the work than on the kind of plough used. There should always, however, be a due relation between the implements used and the width of the rows, in order that the whole work may be completed in a given number of bouts, without ploughing any part of the row twice.—We deem it all important to start the small ploughs early (soon after the corn is well up,) ploughing deep and close to the plants, and endeavoring to get over the whole field once in 14 days, till harvest. During the busy season we keep about half the number of ploughs at work.

Some of my neighbors have frequently hoed over their entire crops before I begin to weed at all—an operation at that early period I verily believe rather retards than forwards the growth of the young and tender plants; nor am I singular in that opinion. If I can barely get over with the ploughs before harvest, and that rather imperfectly as most farmers would pronounce, I am perfectly satisfied. Immediately after harvest we keep all our ploughs running for five or six days, and at the same time, we weed our most grassy spots with the hoes. We then commence thrashing wheat, and leave about half the ploughs to lay by the corn, which they do by ploughing every other row to diminish the risk of firing. When the field has been gone over in this way they return and finish the rows that have been left. As soon as the crop of wheat has been thrashed, the hoe hands return to the corn field and destroy the young grass; this is done to expedite the seeding of wheat. Under this system we are enabled to

deliver the most of our wheat in July, when according to the old plan, we hardly ever commenced thrashing till about the 1st of August. The advantages of an early delivery of wheat must be obvious to every farmer. The quantity is greater, the quality improved, and the price enhanced, as well for these reasons, as because the miller is anxious to get wheat in order to commence grinding at that early season. In fine, I will not say that quite as much corn can be made this way as with hoe work, though I am by no means convinced to the contrary, but I do say, that the increase, if any, would not compensate me for my extra labor at that busy season of the year.

WILLIAM H. HARRISON.

[From the Cultivator.]

GRAPE CULTURE.

Every bunch of grapes, according to Knight in the *Hort. Trans.* commences its formation as a tendril, and it is always in the power of the cultivator, to cause it to remain a tendril. The blossoms are all additions, the formation of which is all dependent upon agents, viz. upon the leaves, which are required to elaborate the food, and upon a good exposure to light and heat. Hence the importance of pruning in autumn or spring, to thin and shorten the wood; and in summer, to increase the exposure of the fruit to atmospheric influence. This practice is too much neglected, or too sparingly performed, by novices in the grape culture. It is essential to native as well as to foreign varieties. It is too common a practice to train the Isabella and other native kinds on arbors, and to let the wood accumulate as it will without using the knife, or using it sparingly. The consequence is, that the fruit is lessened for want of exposure, its time of ripening retarded, and its quality sensibly impaired. One of the most extensive cultivators of the native grape, Mr. E. H. Bonsall, of Germantown, Pa., says, that it is his practice, even after the vines have attained a full capacity for production—ay, five years from the cutting, to cut them in low—his object is to prepare them for bearing an average of fifty clusters to each, leaving several shoots, from three to five joints to a vine for this purpose; and that when fresh pruned, they will not be more than four feet high at the greatest age. We saw Mr. Bonsall's vineyard, consisting of some acres in the summer of 1833, and it had a remarkably fine appearance.

In the summer pruning of the grape, let these rules be observed—1. Suffer only one shoot, and let that be the strongest, to grow from each joint; and if these are very near each other pinch off every other one. 2. When the fruit has set, which will always be upon the new growth of wood, and generally on lateral branches, shorten the fruit bearing laterals to three or four eyes above the fruit, and the laterals not bearing fruit to one eye from the main vine. The object of the first is to throw the sap into the fruit, instead of permitting it to become exhausted in the formation of new wood; of the second, to preserve the bud at the base of the lateral, which is the fruit bud of the following year; and of both, to prevent the too great accumulation of wood and foliage. The main vines may soon after be shortened. The extreme buds on the main

vines, and generally on the laterals, will generally burst, and throw out a new growth. These may also be occasionally shortened, without prejudice to the vine or fruit. When the fruit has obtained its growth, the process of ripening may be facilitated by thinning the foliage about the fruit, so as to give it a better exposure to the sun and air.

In *winter pruning*, the laterals may be cut in to the main vines, taking care not to injure the buds at their base, and the main vines may be shortened to the required length of two to six feet.

Mr. Bonsall's mode of training his vines deserves notice as well for its cheapness as for its utility—of this we speak from experience.—He sets chesnut posts, at the distance of ten feet, firmly in the ground, on the line of his rows. He drives into the face of these, at regular intervals, three (we prefer four) stout nails, nearly up to the head. He then stretches wire, of the size denominated No. 11, along the whole line, making it fast at the end, and giving it a turn round the nail in every post. The posts stand five feet above the ground; the first wire is two and a half feet from the ground, the second intermediate between that and the top of the post, and the third at the top. To these wires the tendrils readily clasp, and much labor is saved in tying, while the wires do not intercept the sun from the fruit and foliage. Tinned wire, though it cost more, is preferable to the common sort, as it is far less liable to corrode. Mr. Bonsall plants his rows seven feet apart, and at the distance of four feet in rows. It should be borne in mind, that the richest grounds do not suit the grape as well as those of moderate fertility—as the former produce a superabundance of wood, and fruit of inferior quality.

GRAFTING.

If raising of fruit be an object of as much importance, as it is generally conceded to be, every expedient to improve the various kinds, produced by our orchards should be sought after with avidity, as it will cost no more to raise good fruit than it does to raise that of inferior quality, and the difference in finding market for the two kinds is well known to every vender of the article.

The great length of time required to produce most kinds of fruit, from seed, and the fact in regard to many kinds, that like will not commonly produce its like, teaches the expediency, if not the possibility of making any material improvements in the fruit of our orchards in this way. We are therefore led to seek this desideratum, in some other way. Superior cultivation will do much towards improving fruit both as to size and (therefore quantity) and flavor. But this method has the disadvantage of being slow in progress, and of producing general instead of particular improvements. Where particular improvements are desired, that is to say, where you are desirous of changing one kind of fruit to a *particular* superior kind, inoculation, or grafting may be resorted to. Each of these methods has its particular advantages, but as the present season of the year is favorable only to the latter, it alone shall receive our present consideration.

The best time for grafting is when the buds of

the trees have become so swollen as to be almost ready to expand into leaves, as at that period it can generally be performed with the greatest success. If the scions which you design to use are near by, they need not be cut until wanted, but if they are to be brought from a distance they may be cut any time in February or March, only be careful to keep them as much as possible in a natural state. The operation of grafting is a very simple, and may be performed by almost every one who ever witnessed it; and if due care be used, the failures will be very few. Different opinions exist as to the best kind of wax to be used in grafting, from which we infer that many kinds may be suitable, though we have generally given our preference to wax, for this purpose, composed of two parts of rosin, one part of tallow and one part of bees-wax. If our orchardists would give this subject a little attention we have no doubt, but that their fruit might thereby be improved many per cent with very little trouble and expense.

[From the Georgia Journal.]

Cotton seed Oil.—A gentleman of Upson county, whose two sons have here a spinning Factory of 6 or 8 hundred spindles, is now constructing in the same neighborhood under water power, a set of machinery for cleaning and hulling cotton seed, and expressing the oil, which for lamps has been found at the Petersburg (Va.) Factory to be superior in more than one respect, to most of the sperm oil. It burns with a clear brilliant light without odour, and is less affected by cold weather, than the oils generally used. It is said to have been tested as a Paint oil, and found good—and the *cold pressed* and clarified, pronounced by a Frenchman, equal to the Olive oil for Salad. This manufacture is quite a desideratum to our Planters as well as to the oil-makers; from each bale of cotton come about 30 bushels of seed, and every 3 bushels of seed yield at least 2 gallons of oil. Rating the seed at 12½ cts. a bushel, each bale will produce to the grower, \$3 75 cts. more than at present. The oil manufactured will be 20 gallons, worth at least 87½ or \$1 per gallon, supposing the Sperm oil competition to cause reduction in its price

G. P. C.

Large Crop down East.—The Massachusetts Society have awarded premiums to John Smith, William Carter, Henry Sprague and Payton Williams; the first for growing 88 bushels of oats on an acre; the second for 58 bushels of barley on an acre; the third for 50 do. do.; the fourth for 515 bushels potatoes on do., and for 35 bushels spring wheat on an acre. The Kennebec Society have awarded two premiums for corn crops, one amounting to 108, and the other to 81 bushels per acre. Until since the establishment of agricultural societies, our brother Yankees would not believe that such crops could be raised any where.

[From the Hudson Republican.]

To the Editor:—

Wilt thou oblige the Agricultural Society of this County, by publishing the annexed extract from a letter addressed to Dr. J. P. Beckman, by

Samuel T. Vary, of Kinderhook, giving a statement of the products of his farm.

It will be understood that the account is for sales actually made, and that he has retained sufficient grain and provisions for the winter's use; and has besides drawn his living from the farm during the year. The farm has 145 acres of land under cultivation. The soil is sand and five gravel, sand and loam, and sand and clay.

Sales and Products of the Farm for 1835.

12 Calves,	\$37 89
196 lbs. Butter, at 20 cts.	39 20
1442 do. Cheese, at 8 cts.	123 37
30 Lambs, at \$1 87½ cts.	56 25
850 bush. Oats, at 52 cts	442 00
375 do. Potatoes, at 25 cts.	93 75
20 tons of Hay, at \$15,	300 00
72 bush. Onions, at 50 cts.	36 00
500 do. Corn, at 82 cts.	421 88
220 do. Wheat, at \$1 50,	330 00
4 Cows, Beef	69 00
2 Oxen and 2 Steers,	130 00
7 Shoats,	17 00
1440 lbs. Pork, at 7 cts.	100 80
22 Weathers, at \$4	88 00

\$2,285 13

Deduct money paid out,

383 75

Net profit,

\$1,901 38

If some of our active farmers would keep a similar account during the year, and also a written account of their agricultural experiments, and present them to be read at the winter meeting of the Agricultural Society, it would add much to the interest of those meetings, and very much extend the sphere of the Society's usefulness. Such communications may be addressed to any officer of the Society, or to

JOHN STANTON GOULD,

Corresponding Secretary, Stockport.

2d Month, (Feb.)

*Mr. Vary's farm is situate two miles north west from the village of Kinderhook.—[Edt. Rep. & Adv.]

Maple Sugar.—There is a great deal of this article manufactured in New-Hampshire. The weather for the last week has been just the thing for our farmers, who are expecting to have a good supply of sugar and molasses—that is to say, we have had freezing nights and thawing days. A considerable quantity of this article is carried to Boston, where it finds a ready market; some of it being as white, and as valuable, as the best of loaf sugar. It is used quite extensively by families who are so fortunate as to own a fine sugar lot. The molasses is of the first quality—a touch or two above the common. We are told by one farmer that he should make about one thousand weight of sugar this season, and a barrel or two of molasses. There are some luxuries in the country that are not known in the city—or if so, they are only to be had for love, or if purchased at all, cannot be done 'without money and price.' Among these are good apples, good cider, and maple sugar. If some of our metropolitan friends could see the streams running into sugar buckets

from the spouts that are let into the maple trees, we as a Yankee, lose our guess, if their mouths water a little, that's all.—*Claremont Eagle*.

IMPORTANCE OF SALT TO CATTLE AND SHEEP.

Salt, as a condiment, is as grateful and as beneficial to domestic animals as it is to man. It serves the same purposes to both. We can readily determine, that it promotes our health and comfort best when taken with our daily food. Then why not equally so to the cattle of our farms? It may be apprehended, that if permitted, the latter will take it in excess. This is not so. If they have constant access to salt, domestic animals will take no more than is required by their natural wants. But if given to them only at long intervals, they will then, if opportunity presents, indulge in it to excess. We have had salt troughs under the sheds in our yards for a dozen years, in which salt has been constantly kept, and to which our cattle have had daily access; and they have not only *not* taken it in excess, but they have been wholly exempt from disease; and although they have been fed three months in a year with ruta бага, and pastured often in fresh rank clover, they have in no case been hoven, nor has their milk or butter been tainted with the flavor of the turnip.

Some years ago, the duty upon salt in Great Britain, was so high as almost to preclude its use for farm stock. Petitions were sent to parliament, for a repeal of these duties, so far as they affected agriculture. The committee to whom the subject was referred, called before them many eminent farmers and others, to testify as to matters involved in the inquiry. The evidence was voluminous and conclusive, not only that the duty amounted almost to a prohibition of its use for cattle, and for the poor, but that where this privation had been felt, disease had multiplied, to man and beast, to an alarming extent. We refer to the *London Repertory of Arts*, vols. 31 and 35 for particulars. In the mean time we give an abstract of the evidence of two of the witnesses, so far as regards the benefits of the daily use of salt to animals, well known as men of distinguished eminence, and extensive practical agricultural knowledge.

J. C. Curwin, M. P. states, among other advantages of giving salt to his animals, daily, that it removed the unpleasant flavor from the milk of cows fed with turnips; that it greatly lessened inflammatory diseases—promoted digestion—increased the quantity of milk, and disposed the animal to fatten. That it improved the general health and spirits of horses, rendered the gloss of their coats remarkably fine, and given at the rate of 8 to 12 ounces per day, rendered fit for service some which had become disabled by a disorder called *the grease*. That given to sheep, in the quantity of two ounces per day, it preserves their health, renders them sound, and sensibly improves their condition.

Lord Somerville, considers salt all important to sheep. Without it, even on dry soils, his flock became sickly, and he lost many. Giving it twice a week, they were healthy. Salt preserves hay, and restores it when damaged. In the humid climate of Great Britain, his lordship

feeds a ton of salt to every thousand sheep annually. It is particularly serviceable with green food, clover and turnips, and prevents and cures the *hoven*, which is *pent-up wind*, occasioned by excess of fermentation in the stomach. In a wet season he did not lose a sheep, although fed with turnips, and he considered salt as a specific against disease. He generally gives it with hay, about twenty-five pounds being sifted on to every ton.

These facts are of high authority, and of deep interest to the cattle and sheep farmer, and of general application. The low price of salt among us will enable every farmer to profit by them.

How to preserve pigs in good health and in good appetite during their period of fattening.

Mix with their food a few gall nuts, bruised with charcoal. We are unable to account how this operates so beneficially on the economy of the health of these animals, but we are wishful to make it public, as we have experienced the result to be decidedly good.—*British Farmer's Mag.*

It is known to every farmer, that hogs, when fattening in a close pen, are liable to lose their appetite, become sick and die. There are several preventives for this evil—as occasionally mixing a little sulphur with their food, giving them charcoal, rotten wood, or permitting them to root in a small yard appended to the pen. Some of these precautions are necessary.

ENCOURAGING TO CATTLE RAISERS.

Fine Beef.—Two or three trips since the tow-boat Dutchess County, took down from this place a four year old heifer, fattened by Mr. Isaac B. Clapp, of La Grange. We saw the heifer going through the village, and noticed her as a remarkable plump and fine-looking animal. She was sold in New York on the foot, for \$150, to Mr. Ryerson, a dealer in cattle. Mr. R. sold her to a butcher for \$20 per hundred, and this butcher again sold her to another for \$26 per hundred. The heifer weighed when dressed 1147 pounds in the quarters; and was therefore worth at the last named price \$297 16 exclusive of the hide and tallow.

Judge Thomas Sweet, of this town, also sent to New York a few days since per tow-boat Clinton a steer which weighed nearly 1600, and brought in market \$20 per hundred.

Poughkeepsie Tel.

Method of curing bad Tub Butter.—A quantity of tub butter was brought to market in the West Indies, which, on opening, was found to be very bad, and almost stinking. A native of Pennsylvania undertook to cure it, which he did in the following manner:

He started the tubs of butter in a large quantity of hot water, which soon melted the butter; he then skimmed it off as clean as possible, and worked it over again in a churn, and with the addition of salt and fine sugar, the butter was sweet and good.

Indestructible varnish.—Mr. John Oxford has shown that naphtha, or the essential oil of coal-

tar, purified and saturated with chlorine is converted into a fixed oil, of a clear, and red color, which becomes as thick as jelly in cold weather. One part of oil, two parts of white lead, one of purified lime, and one of coal tar ground together, form a paint which will resist all the agents by which the substance to which it is applied are liable to be attacked, and also preserves wood from worms.

[From the Genesee Farmer.]

CURIOUS RELIC OF ANTIQUITY.

We have before us a very curious and interesting specimen of ancient art, recently presented to us by a friend,—the work probably of people who inhabited this country previous to the present race of aborigines; for it displays a perfection in the arts far surpassing the rude state in which they at present exist among this people. The relic was found in Michigan, in one of those ancient fortifications which are scattered over our country. It is a piece of Sculpture, the material of which resembles, somewhat, black slate, but is as hard as flint. A knife will make no impression upon it. It evidently must have been carved when in a softer state than the present. It was probably formed of some earthly material into a proper consistency to be cut, and was then hardened by baking. The figure is that of a female sitting on the ground, in an attitude and air of sadness and despondency, leaning her head upon the back of her left hand, the elbow resting on the top of a small vessel in the form of a cask; the right hand resting on the knee and holding something which appears to have engraved on it some written characters, but which are too small and indistinct to enable us accurately to discern their form. Over the head is thrown a loose drapery, falling down upon the shoulders and back, leaving the left arm on which she reclines, and the left breast naked, but folding across in graceful folds over the right arm and breast, and covering the front part of the figure. On one part of the head, which is not covered by the drapery, the hair is gracefully parted and hangs down a portion of it in tresses upon the left breast. The little cask on which she leans, shows the staves in regular order, with three hoops at the top, and two at the bottom.

The head of the cask comes up even with the chime and seems to be formed of narrow strips like the staves; on the front part of the cask there appears to have been something attached like a bundle, but of what form is not distinguishable, as a portion of the front part of the figure is broken off. Around the cask lengthwise, over the hoops, passes something like a band, which was destined, perhaps, for the purpose of carrying it. From the size of the vessel, compared with that of the figure we should judge its use was to carry water. Every part of the figure and its appendages, is very distinct, and the sculpture admirably performed, and yet the whole height, by exact measurement, is but one inch and an eighth. The head, which displays very perfectly the features, and even a countenance indicative of woe, is no larger than a good sized pea. What this tiny figure was meant to represent, when was the age in which it was made, and who were the people whose ingenious

artists could produce such works,—are interesting inquiries, but which will probably never be satisfactorily answered. With it, we were told, were found several other curious specimens of sculpture representing animals and trees, and formed of the same black material.

The care-worn and woe-begotten countenance of this figure and the attitude in which she appears, forcibly reminded me of the afflicted out-cast bond-maid, Hager, in the wilderness, with her exhausted bottle of water, sitting and bewailing her unhappy lot, at a distance from her little Ishmael, that she might not behold the child perish with thirst. We only want a view of the little fellow lying under the bush on the parched ground, to make the allusion complete.

January 25th, 1836.

W. W. B.

RULES FOR CONVERSATION—By Thos. Jefferson.

1. In stating prudential rules for our government in society, I must not omit the important one of never entering into dispute or argument with another.

2. I never saw an instance of one or two disputants convincing the other by argument. I have seen many of them getting warm, becoming rude, and shooting one another.

3. Convincing is the effect of our own dispassionate reasoning, either in solitude or weighing within ourselves, dispassionately, what we hear from others, standing uncommitted in argument ourselves.

4. It was one of the rules, which above all others, made Dr. Franklin the most amiable of men in society, "never to contradict any body." If he was urged to announce an opinion, he did it rather by asking questions, as for information, or by suggesting doubts.

5. When I hear another express an opinion which is not mine, I say to myself, He has a right to his opinion, as I to mine,—why should I question it? His error does me no injury, and shall I become a Don Quixotte, to bring all men by force of argument to one opinion?

6. If a fact be misstated, it is propable he is gratified by a belief of it, and I have no right to deprive him of the gratification.

7. If he wants information, he will ask, and then I will give it in measured terms.

8. If he still believes his own story, and shows a desire to dispute the fact with me, I hear him and say nothing. It is his affair, not mine, if he prefers error.

9. There are two classes of disputants most frequently to be met with amongst us. The first is of young students just entered the threshold of science,—with the first views of its outlines, not yet filled up with the details and modifications, which a further progress would bring to their knowledge.

10. The other consists of the ill-tempered and rude men in society, who have taken up a passion for politics.

11. Good humor and politeness never introduce into mixed society a question on which they foresee there will be a difference of opinion.

12. Be listener only, keep within yourself, and endeavour to establish within yourself the habit of silence, especially in politics. In the present

fevered state of our country, no good can ever result from any attempt to set one of these fiery zealots to rights, either in facts or principles. They are determined as to the facts they will believe, and the opinions on which they will act.

13. Get by them, therefore as you would an angry bull—it is not for a man of sense to dispute the road with such an animal.

Sentiments.—Agriculture is the nursery of patriotism.

A wise government will not be slow in fostering the agricultural interest.

Let every farmer who has a son to educate, believe and remember, that science lays the foundation of every thing valuable in agriculture.

Science must combine with practice to make a good farmer.

The opposition against book farming rests on the shoulders of two monsters, ignorance and prejudice.

If you separate science from agriculture, you rob a nation of its principal jewel.

Agriculture, aided by science, will make a little nation a great one.

All the energy of the hero, and all the science of the philosopher, may find scope in the cultivation of one farm.

A skilful agriculture will constitute one of the mightiest bulwarks of which civil liberty can boast.—*Maine Farmer.*

Grafting Wax.—We would advise our farming friends to prepare, in the course of this month, when stormy days prevent work abroad, a quantity of grafting wax; as it is sometimes inconvenient to allow time when wanted, and the husbandry of time is one of the secrets of success in farming. The following proportions of the usual materials have been recommended as good, viz:—two and a half pounds of rosin, one pound of beeswax, and one pound of tallow; or one pound rosin, three pounds beeswax, and two pounds tallow; but the recipe we use, and which we know to be good, is as follows,—half a pound of tallow, one pound of beeswax, and two pounds of rosin,—the whole melted together, and then worked in water like shoemaker's wax into rolls for use. When the grafting is to be performed in the nursery, or on small trees or branches, the most convenient mode of applying the wax is by having it on strips of muslin of a width proportioned to the size of the tree, from one to three inches. These strips of muslin are prepared, by taking cotton cloth, cutting it into strips and dipping them into the wax when melted. When their branches are large, it is best to apply the wax directly to the cut limb, and when of a proper consistence and temperature, with the hands kept slightly greased, the use of this composition is perfectly easy and effectual. If you make a little more than you use this spring, it will not be lost: we have some two years old which retains all its qualities.—*Genesee Farmer.*

POTATO OATS.

100 Bushels seed potato oats—a choice article—for sale by **JAMES MOORE,** Light, near Pratt st.

Mh 22

at the Maryland Agricultural Repository.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	8 00	9 00
CORN, yellow,	bushel.	83	85
White,	"	—	78
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18	19½
FEATHERS,	pound.	48	—
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's,	"	7 50	8 00
Do. do. Superfine,	"	6 87	7 12
SuperHow. st. in good de'd	"	6 81	—
" " wagon price,	"	6 75	—
City Mills, extra,	"	—	7 00
Do.	"	6 62	—
Susquehanna,	"	6 75	—
Rye,	"	—	—
Kiln-dried Meal, in hhds.	bhd.	—	20 00
do. in bbls.	bbl.	—	4 50
GRASS SEEDS, red Clover,	bushel.	47 5	4 87
Timothy (herds of the north)	"	2 75	3 25
Orchard,	"	none	—
Tall meadow Oat,	"	—	—
Herds, or red top,	"	—	—
HAY, in bulk,	ton.	18 00	—
HEMP, country, dew rotted,	pound.	6	7
" " water rotted,	"	7	8
HOGS, on the hoof,	100lb.	—	9 37
Slaughtered,	"	—	—
HOPS—first sort,	pound.	18	—
second,	"	16	—
refuse,	"	14	—
LIME,	bushel.	33	35
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	—	46
PEAS, red eye,	bushel.	—	—
Black eye,	"	—	1 12
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	5 00	5 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	—	96
Susquehanna,	"	92	—
TOBACCO, crop, common,	100 lbs	5 00	5 50
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappry, suitable for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 75	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	—
Red,	"	1 35	1 40
WHISKEY, 1st pf. in bbls.	gallon.	38½	39
" " in hhds.	"	35½	—
" " wagon price,	"	34	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	2 25	—
To Wheeling,	"	2 50	—
WOOL, Prime & Saxon Fleeces,	pound.	55 to 68 30	32
Full Merino,	"	49 55 28	30
Three fourths Merino,	"	45 48 26	28
One half do.	"	40 45 24	26
Common & one fourth Meri.	"	36 40 22	24
Pulled,	"	38 40 23	24

A HERD OF DURHAM STOCK

BY AUCTION.

THE entire herd of the late Dr. Hosack, at Hyde Park, New York, 7½ miles above Poughkeepsie, will be sold on the 20th of May, by auction. ALSO 100 Bakewell Sheep. may 3

Printed by Sands & Neilson, N. E. corner of Charles and ... streets.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	15	17
Shoulders,....do.....	"	12	14
Middlings,....do.....	"	13	14
Assorted, country,....	"	—	13½
BUTTER, printed, in lbs. & half lbs.	"	20	25
Roll,.....	"	20	22
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	17 00	30 00
Dry,.....	"	8 00	12 00
CORN MEAL, for family use,....	100lbs.	1 75	1 81
CHOP RYE,.....	"	—	1 87
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,	barrel.	7 75	—
No. 2,.....	"	6 75	—
Herrings, salted, No. 1,.....	"	—	—
Mackerel, No. 2, 9 25;—No. 3	"	—	6 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....	par
Branch at Baltimore,....do	Farmers Bank of Virginia 2½
Other Branches,....do	Bank of Virginia,.....do
MARYLAND.	Branch at Fredericksburg, do
Banks in Baltimore,....par	Petersburg,.....do
Hagerstown,....do	Norfolk,.....do
Frederick,.....do	Winchester,.....do
Westminster,.....do	Lynchburg,.....do
Farmers' Bank of Mary'd, do	Danville,.....do
Do. payable at Easton,....do	Bank of the Valley,....do
Salisbury,.... 5 per ct. dis.	Branch at Romney,.... 2
Cumberland,.....do	Do. Charlestown, do
Millington,.....do	Do. Leesburg,....do
DISTRICT.	Wheeling Banks,.... 2½
Washington, } Banks, 1.	Ohio Banks, generally 3a4
Georgetown, } Banks, 1.	New Jersey Banks gen. 1½a2
Alexandria, } Banks, 1.	New York City,.... ½a
PENNSYLVANIA.	New York State,.... 2½a3
Philadelphia,....do	Massachusetts,....2a2½
Chambersburg,....do	Connecticut,....2a2½
Gettysburg,....do	New Hampshire,....2a2½
Pittsburg,....do	Maine,....2a2½
York,....do	Rhode Island,....2a2½
Other Pennsylvania Bks. 1½a2	North Carolina,....2½a3
Delaware [under \$5]....3a4	South Carolina,....2½a3
Do. [over 5]....2a2½	Georgia,....3a3½
Michigan Banks,....5a	New Orleans,....5
Canadian do.....5a	

GAMA GRASS ROOTS.



5000 Gama Grass Roots, just received. Price \$2 per 100. This grass still retains its high character for soiling and great products. Also in store, a few pounds of GAMA GRASS SEED. Price \$6 per pound or 50c. per ounce. And will be for sale in a few days, 1300 Double Dahlia FLOWER

ROOTS, embracing all the finest and most rare sorts.—Price 50 a 75 cents, \$1, 1 50 a \$2 each. A liberal discount will be made when one dozen or more are taken.

R. SINCLAIR, Jr.

ap 26

Light, near Pratt st wharf.

CONTENTS OF THIS NUMBER.

Notices of a communication on the culture of the Ruta Baga—of the Dahlia—Work for May—productive field, rotation of crops, efficacy and operation of lime—new method of setting timothy—mortality among stock and editor's remarks thereon—rare plants—Mr. Harrison on the cultivation of corn—grafting—Cotton seed oil—large crop—maple sugar—importance of salt to cattle and sheep—treatment of pigs—encouragement to cattle raisers—mode of curing bad tub butter—indestructible varnish—Mr. Jefferson's rules for conversation—just sentiments or adages—grafting wax—prices currents, advertisements, &c.

LIST OF FLOWER SEEDS,

FOR SALE BY R. SINCLAIR, Jr., Light, near Pratt street, Baltimore.

A. signifies annual flowers.

TIME OF SOWING, LAST OF APRIL TO JUNE.

Ageratum, A.	Joacoea, P. W., & yellow, A
Amaranthus, A.	Job's Tears.
Auricula.	Jacob's Ladder.
Argemone, gr. flowering A.	Larkspur, mixed, dble. A.
Asters, mixed Dutch, A.	Lupins, 4 sorts, A.
" China, A.	Mignonette, A.
Anemone, mixed, B.	Marygold, African mixed,
Bottle, Blue.	Ditto, French.
Balloon Vine, A.	Monk's Hood.
Broom Scotch, A.	Monkey Flower, mixed.
Balsamine.	Oleander.
Cacalia, scarlet, A.	Onethera, 5 fine sorts.
Cockscomb, A.	Pea, everlasting, P.
Clarkia, A.	Ditto, sweet, 6 sorts, A.
Chrysanthemum, mixed.	Poppy, mixed, A.
Candytuft, A.	Pinks, 6 fine sorts.
Cypress Vine, A.	" Carnation.
Catterpillars, A.	Purple Toped Clary.
Collinsea, gr. flowering, A.	Persicaria, mixed, A.
Cobea, climbing.	Prince's Feather.
Columbine, Dble.	Primrose, purple.
Convolvulus.	Pentapetes, scarlet, A.
Cowslip.	Periwinkle, R. & white.
Canterbury Bells.	Polyanthus.
Cereopsis.	Rudbeckia, A.
Cardinal Flower, scarlet.	Snap Dragon, scarlet.
Cowslip.	Snails, A.
Devil in a Bush.	Sun Flower, A.
Euphorbia, variegated, A.	Sensitive, A.
Egg Plant, white.	Schizanthus, A.
Fox Glove, mixed.	Scarlet Synchnis.
Forget me not, A.	Shot, Indian.
Gourd, 3 fine sorts, A.	Sultan, P. & white, A.
Gilia, blue.	Scabius-sweet.
Gillyflower, stock.	Swallow-wort.
ditto German, mixed.	Thistle, Scotch, A.
Honesty, or Satin Flower.	Touch-me-not, A.
Hollyhock.	Traveller's Joy.
Hedge Hogs, A.	Trailing Nalano.
Heart's Ease, A.	Virgin's Bower.
Hybiscus, gr. flowering.	Wall-flower, bloody.
Honeysuckle, French, A.	Zinnia, A.
Ipomea, mixed, A.	

ALSO—20 fine new sorts of flowers.

April 3.

A SPLENDID HERD OF STOCK FOR SALE.

THE editor of the Farmer and Gardener, has been appointed Agent for the sale of one of the largest herds of improved Cattle, Durham, Alderney, &c. to be found in the country. They are the property of a deceased person's estate, and, therefore, applications should be made early. Among them are,

2 full blooded improved short horn Durham Cows, 7 years

3 do do do do	do do 9 years old
3 do do do do	do do 20 do
3 do do do do	do do 4 do in calf
3 do do do do	do do 3 do do
1 do do do do	do do 8 years old

15 full blooded improved short horn Durham Cows

3 full blooded improved short horn Durham Heifers, 1 year old each

2 do do do do	do Bulls, 3 years old each
1 do do do do	do do 8 do

3 full blooded improved short-horn Durham Bulls

1 half blooded do do do do	do do 9 years old
1 do do do do do	do do 7 do

2 half blooded do

2 half blooded Durham Heifers, 1 year old.

1 full blooded Holland Cow, 10 years old

1 do Alderney, 17 years old

3 half blooded Devonshire Cows, one 2 years old, the other two 15 years old each.

Any person or companies wishing to purchase any portion of the above stock, will please address the editor of this paper. Pedigrees will be furnished. All letters upon the subject must be post paid.

ap 19

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale, the thorough bred improved short-horn Durham bull Superior—he is a beautiful roan, was bred by Stephen Williams, Esquire, of Northampton, Massachusetts, and was calved July, 1831.

Superior was got by Frederick, dam Yellow Rose by Young Denton, (963)

g. d. Arabella (imported) by North Star (460)

g. g. d. Aurora, by Comet (155)

g. g. g. d. do by Henry

g. g. g. g. d. by Danby, (949)

Frederick was got by Wye Comet

Dam Tulip by Young Denton (963)

g. d. Tube Rose 2d (imported)

g. g. d. Tube Rose

g. g. g. d. Tulip Comet (157)

g. g. g. g. d. Cherry by Ladeone.

Arabella and Young Denton were sent out by Samuel Williams, the American banker in London, to his brother in Massachusetts to improve the cattle of this country, and, says our informant, never did a man hit more luckily; for the stock from young Denton have not only proved of fine size and form, but deep milkers.

Superior has two crosses per Denton, and is a very square, compact built animal, straight on the back and legs, broad on the loin and hips, chest deep and broad, short and small in the leg, rather heavy in the head and neck. So far he has proved a sure and good stock getter. \$50 have been refused for his calves by native cows. His price deliverable in Baltimore is \$300.

Also, a Hampshire Down Buck, 7 years old—price \$100—and

A South Down Buck, 1 year old this spring—price \$50.

—All letters upon the subject of the purchase of either of these animals, must be post paid. ap 19

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted. Wove wire for screens, fans, cellar windows, safes, &c. Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment, extra castings for ploughs of all kinds, Threshing machines, Horse powers, Mill work, window weights, &c can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffe oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

GAME CHICKENS.

FOR SALE, five dollars a pair, Game Fowls, warranted to be of genuine strain. Apply to the editor.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. F. ROBERTS.

No. 2.

BALTIMORE, MD. MAY 10, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 10, 1836.

THE RUTA BAGA.

We insert in another column the very interesting communication of Mr. Thomas Bevan, to which we alluded in our last paper. Mr. Bevan is the manager of the beautiful estate of Mr. Richard Caton, situated nine miles from our city, called Brookland Woods, of which we gave a particular description last year. He is a practical and scientific farmer, having received the advantage of several year's instruction from that eminent Welch agriculturist, and cattle breeder, the Hon. Mr. David of Radyr, under whose tuition he had the best of all possible opportunities of obtaining a thorough knowledge of every branch of husbandry, and more especially of those which belong to the department of raising food for stock. We mention these facts, as being connected with the history of Mr. Bevan; because they go to establish, beyond all cavil, his claims to the reputation of an experienced agriculturist, and show the entire safety of following his lead. The culture of the Ruta Baga is a thing very much neglected in our country, and it is the more to be regretted, as it is the vegetable above all others best calculated to preserve stock in health and vigor through our long and piercing winters.

There is, however, one fact relative to the crop raised by Mr. Bevan, which he appears to have overlooked, and as it is important, we will mention it.

After the crop of Ruta Baga had done growing, a furrow was turned up on either side of the roots, which, thus protected, were permitted to remain in the open field, and continued sound until the middle of April. This is the most interesting incident in the history of the cultivation of this root, because it takes off a large portion of the objection heretofore raised against roots generally—the difficulty of keeping them over the winter. As the season for sowing the seed is near

at hand, we would particularly call the attention of farmers to the virtues of this root; and as an encouragement to their yielding faith in the belief of its virtues, we will state, that we were called upon some weeks since to inspect an aged Devon cow, which had been fatted at Brookland Woods on Ruta Baga with only the addition of three quarts of bran per day. She yielded near 70 lbs. of tallow. This for a cow rising sixteen years of age, was truly a remarkable result, and goes to show two material facts, most conclusively—the facility with which the Devon stock fatten, and the nutritious properties of the Ruta Baga.

STEAMING OF CORN STALKS AS FOOD FOR CATTLE, &c.

The dreadful mortality from famine among the cattle to the eastward during the past winter, seems to call upon every one engaged in agricultural pursuits to fall upon some plan of economising the food destined for winter use. This course is alike dictated by interest and humanity, and will, we sincerely trust, receive all proper attention from those who are to be affected by it. With this brief introduction, we will state a simple fact, which will go far to show how much may be gained by adopting an enlightened system of feeding. During the past season, protracted, cold, and cheerless as it was, the large and beautiful herd of Devons at Brookland Woods, the seat of Mr. Richard Caton, near this city, were fed upon steamed corn stalks and Ruta Baga. This was not the result of scarcity, but a matter of choice, for the fine meadows belonging to the estate, yields ample supplies of the choicest timothy hay, and have been celebrated for years, for their great productiveness. The enlightened proprietor of this fine estate conceived the opinion that by submitting the corn stalks to the action of heat in the process of steaming, he would be able to restore to them much of that sugary property that renders the stalk in its young and green state, so much the favorite with the human palate, and that thus its nutritive powers would be brought into activity. The result of his winter's feeding has not only been highly gratifying to him as affording a most happy illustration of the justness of his views, but it has enabled him to get his stock through the winter in good and vigorous health and thriving condition, with a saving

of from 45 to 50 tons of timothy hay. After stating this fact, it may be considered as a matter of concern, to know how he prepares his stalks, and under that impression, we will briefly state the manner of his doing so. The stalks are first cut by a straw-cutter into the proper lengths, and are then steamed and fed to his stock. The process is as simple as can be desired, and costs but a few hours labor each day: and it should be borne in mind, that this labor is required to be performed mostly in the dead of winter, when, on all large estates at least, there are many hands idle, so that it is no additional tax whatever upon the proprietor of the farm by way of labor.

The cost of an apparatus for steaming food should deter no one. We have already described the one used by the Hon. Charles A. Barnitz, of York, Pa., the cheapness and efficacy of which has been so highly commended, and we will now describe that used by the Hon. Morgan Lewis of New York, formerly governor of that state—a gentleman whose ample means, enthusiastic devotion to the pursuits of husbandry and high attainments, are at least guaranties of the efficacy of his plan.

He has a kettle holding some forty or fifty gallons, which he has placed over a furnace. In this he boils clover hay, which is chopped, as well as most vegetables. Over the mouth of the kettle he places a hogshead, holding about 12 bushels, the bottom of which is perforated with a number of holes, made by a common sized auger. These allow the steam to pass through and cook the potatoes with which the hogshead is filled. The steam is kept in by a loose cover, which is placed on the top of the hogshead. By this means, while the articles in the pot are boiled, the potatoes in the hogshead above are cooked, without the least difficulty by the steam generated by the fire below.

The plan of cooking the potatoes separately from the other food, is performed by many of our best farmers; because the opinion is entertained by them that the liquor in which potatoes are boiled, contains deleterious qualities, particularly if the potatoes have lain exposed to the action of the sun and air, and acquired a greenish complexion.

AN EXCELLENT EXAMPLE.

We republish the following *circular*, which we copy from that excellent paper, the New Castle Gazette, with the more pleasure, as it is calculated by the force of its example to do much good. The formation of agricultural societies, in the several counties of the respective states, is better calculated to advance and protect the interests of those engaged in agriculture than, perhaps, any other thing that could possibly occur. Besides concentrating opinion, it serves to keep alive a spirit of generous emulation and awaken a healthful thirst for improvement, both of which are much needed in every district and section of our country. We confess that in matters connected with husbandry we are impelled by impulses which border on enthusiasm, and we may, therefore, be expected to feel more than ordinary pleasure when we see efforts of the character of the present made in behalf of a branch of industry to which we are bound by every consideration which can enlist the sympathies of the human heart or animate the mind of man to exertion. May we ask of each and all of our readers to read this circular with attention, thoroughly digest the wholesome advice it inculcates, and practice upon the lessons of wisdom it would teach: and while we are thus asking this poor boon of those with whom our own interest is identified, may we ask them also, to stand forth as the friends of the most noble of all sciences, and use their influence to organize in each and every county in the United States a similar association to that which the citizens of New Castle county are, with so much patriotism, so much enlightened economy, and so much foresight and wisdom, about to form. It is a melancholy truth that there are several of the states in which no *agricultural society* exists, and can it longer be a matter of surprise that there should be so many worn-out fields? We should think not; for this simple fact, of itself, shows, that a most culpable apathy among agriculturists lies at the very foundation of the evil. We, therefore, rejoice, most heartily rejoice, at this evidence of a better feeling, and we trust that it may prove an epidemic in our country so catholic, so universal, in its influences as to visit every homestead and cottage in the land. And should it so extend, what a glorious incident will it be in the history of "*Little Delaware*," that her citizens had given new impulse and animation to an institution whose blessings are so competent to be diffused through every nerve and ligament of our wide and expanded territory! The results which it would achieve would be as replete with blessings to the

country at large, as were the deeds of arms of this gallant little sister brilliant during the period of our history when virtuous and iron-hearts periled all for liberty.

[From the New-Castle Gazette.]

AGRICULTURE.

The following circular is one of great importance to the people of this state—not only to agriculturists, but to the whole population. Hardly a week passes, but we hear of families "breaking up" and "going west." Something must be done or the lower part of the state will be depopulated, and we know of nothing that will tend more to stop this tide of emigration than the formation of such a society as is here intended. We hope our friends in the lower part of the state will interest themselves in this matter, and on the 7th day of May exhibit such an array of names as will surprise the projectors of the same. We wish each and every of our subscribers to consider this circular addressed to *him*, and govern himself accordingly.

Circular addressed to the inhabitants of New-Castle county.

The subscribers, citizens of this county, pledge themselves to support, by an annual contribution of five dollars, for the next five years, "The Agricultural Society of New Castle county," and invite your aid and co-operation in its establishment. The objects of the association are threefold, viz. AGRICULTURE, HORTICULTURE, and the rearing of SILK. The society will endeavour, by a laudable ambition and liberal premiums, to establish the best cultivation of the different soils of the county, so as to afford the greatest products at the least expense—to hold out inducements to Farmers to improve their lands, stocks of horses, cattle, sheep and swine; to encourage gardeners and nursery men, to bring into our markets most choice fruits, vegetables, plants and flowers;—and to favour by every means and information the silk-growing interests of the country.

A meeting of the members for organization, and the adoption of a constitution will take place on Saturday the 7th day of May, at the City Hall, Wilmington, at 10 o'clock, A. M. Any names added to this list you will please forward to that meeting.

The subscribers are—

James Canby	Charles Dupont
John Clarke	R. H. Bayard
E. W. Moore	James I. Brindley
W. R. Sellers	Thos. Merryweather
Wm. Gibbons, M.D.	Willard Hall
Henry Latimer	J. P. Garesche
Joseph Witherill	Jas. Price
Wm. Chandler	Jos. T. Price
Richard Topham	Thos. Massey, jr.
Justa Justis	Allen McLane, M. D.
Anthony Biderman	Edward Tatnall
Henry Whiteley	Samuel Wollaston
John Richardson	Samuel Canby
W. P. Brobson	Wm. Robinson
N. G. Williamson	John Platt
Eli Hilles	Thos. J. Higgins
James A. Bayard	George Griffin
John Price	Washington Rice
H. Gibbons, M. D.	Edward Canby
J. S. Naudain, M. D.	Enoch Roberts

Philip Reybold	Thos. Baldwin
J. W. Thomson, M. D.	Jacob Canik
Wm. Solomon	Jonathan Bonney
A. S. Read	James Webb
Thomas Robinson	Merritt Canby
Benj. Webb	T. Robinson, N. C.
Samuel P. Johnson	Edward Grubb
Thomas Garrett	Wm. H. Jones
John Wales	H. F. Askew, M. D.
H. M. Bayard	John Gordon
Thomas Stockton	Enoch E. Camp.

SKINLESS OATS.

To the Editor of the Farmer and Gardener:

Having seen several statements in the agricultural papers, detailing the results of experiments in the culture of the skinless oats, I am induced to submit the following for publication.

Last spring I obtained four quarts of these oats, which I sowed thinly on three separate pieces of ground, amounting in all to three eighths of an acre. One third of the land was in a low situation, on a stream, and on the day I intended to harvest the crop there was a heavy fall of rain, which entirely destroyed it. From this portion, therefore, I reaped nothing. From the remaining quarter of an acre I gathered five bushels, being at the rate of twenty bushels to the acre. The land however, though of good quality, was by no means occupied with the growth, as my object was rather to obtain the greatest possible product from the seed, than from the acre. The season was very dry from the time the oats came into flower until they were ripe, which naturally shortened the crop. The weight of the oats was about forty pounds per bushel.

Under favorable circumstances, I suppose, thirty or forty bushels may be grown on good land to the acre; but I regard it as next to impossible to reap sixty or eighty fold, which has been intimated by some persons. The value of this variety, in a threshed or ground state, compared with the common oats, is, measure for measure, about as two to one; and, divested as it is of the husk, it would be rather unreasonable to expect it to produce a greater number of bushels, or even as many, from a given quantity of land.

This spring I have had four bushels sown on as many acres, which will be an experiment on a sufficiently large scale to establish its probable productiveness with some precision. I will communicate the result when ascertained.

A FARMER.

Virginia, April 28.

CULTURE OF THE RUTA BAGA.

To the Editor of the Farmer and Gardener:

In answer to your request concerning my method of raising *Ruta Baga*, I have written you the following lines:

My method is to plough up the ground in the fall of the year, in order to give it the benefit of a winter's frost, and about the first or second week in May I harrow and cross-plough it, then leave it to stand in that condition until seeding time; but if the ground should be stiff and foul I give it more ploughing and harrowing, and scuffle out the weeds, &c. Having the ground thus prepared, when seeding time comes, the land is opened in drills 27 inches apart, by a

method which is novel in this section of the country, and a description of which may, perhaps, be instructive to other farmers. It is thus:—I give my ploughman, (whom I have taken great pains to instruct, and after two years practice he is what may be called a first rate hand,) a rod 54 inches in length, with a notch in the middle, and 20 pieces of split rods, or pieces of laths, for marks, which he sets in the ground at each end of the field, 27 inches apart, by the measured rod, then he starts his plough from No. 1 on the one side of the field to No. 1 on the other side, and back from No. 10 to No. 10 on the other side, until the 10 drills are opened. In opening drills by the above method, half the time and labor is saved. I have known ploughmen with two good horses to open four statute acres per day. The double swingle-tree is 54 inches in length, and, after opening one drill, the right hand horse walks in the furrow, and the plough being fixed on the centre, he cannot err in keeping the proper distance let the field be ever so long. After the drills are opened I begin to haul out the manure. I set as many carts going as will answer the distance from the yard to the field, so that one cart may be in the field putting down manure, and one in the yard filling, and as many on the road as will keep both at work without stoppage, then the whole concern will be moving like clock-work. The manure is put down in every third drill, then follows a man with a dung-fork, who casts the manure on both sides to the adjoining rows, then follow three little boys, spreading the manure in the rows, which must be done with great evenness, and be trod down if it should be long and light; after the manure is put in, the drills are split to cover it. The seed I put in with a single drill, which is attached to the frame of a six inch roller by an iron hook, which can be moved from one side to the other on the head lands. The roller in going flattens the drills before the seed drops, and in returning covers the seed over in a very complete manner. When the plants are up, and are about the size of a bird's egg, I run a scuffler between the rows. The scuffler is made with three shovels; the fore one, which is the centre one, is a duck foot, and the two side ones are bent inward, and the wood-work is constructed that it may be made wider or narrower according to the width of the row. The above scuffler destroys all kinds of weeds, and at the same time takes away the soil from the plants, in order to prepare them for cutting out. After the plants are scuffed the hoers come with cast-steel hoes, and take away all the superfluous plants, and leave only a single one, eight inches apart from plant to plant. In the course of a fortnight or three weeks, if any weeds or grass should show themselves among the plants, the scuffler must be worked twice again, in the place among the rows, which will generally be sufficient for the crop. It is necessary to observe that after the manure is covered the seed must be put in as soon as possible; at all events it must not be delayed until next day, otherwise one third of the crop will be lost.

This is the method I practised last year in raising that beautiful crop which you saw when you visited this place last fall. That crop has

saved me between forty-five and fifty tons of hay, which was sold, packed, for twenty dollars a ton.

The above method I have practised for about twenty years, and never failed to raise a good and profitable crop of turnips. The time I sowed my seed last year was about the middle of July, but I am well aware that if I had sowed them three weeks sooner that the crop would have been much heavier than it was. I intend, if I possibly can, to sow mine this year in the month of June, which, I think, will answer better than at any later period. In hoeing the last time great care must be taken to take away the soil from the plants and leave them as bare as you can; they will thrive much quicker, and come to a much larger size, than if they were partly covered over.

I remain yours most respectfully,

THOS. BEVAN.

Brookland Woods, April 25, 1836.

INDIAN CORN

Made without tillage after planting.

To the Editor of the Farmer's Register:

By experiments, I have arrived at some conclusions in regard to the culture of Indian corn, which I think are of importance to planters in the southern states. I communicate them for the use of the public with great hesitation, because they are directly at variance with the received opinions on the subject.

The early part of my life was spent in agricultural pursuits—and hence, if there were no other reason, I feel a deep interest in every thing relating to agriculture. I noticed, very early, the great difficulty in transplanting successfully the young corn plants. Whence comes this, but from breaking the roots in taking the plants up? How is it then, that intelligent farmers affirm the doctrine that one chief object in ploughing corn, is to cut its roots? If breaking the roots of young corn in transplanting it, is really fatal to its future growth, must not breaking its roots with the plough, when it is older and the season hotter, be a serious injury to it? Any other conclusion seems to me to be at variance with the general economy of nature. It seems to me that there can be, in truth, but two reasons for ploughing or hoeing corn—1st, to destroy grass and weeds; and 2d, to keep the soil loose, that the roots may penetrate easily, in search of their proper food. But in accomplishing these two purposes, great injury must be done to the corn, by breaking its roots. Can we not accomplish both these ends, and at the same time keep clear of the attendant mischief? I think we can.

Last spring I planted a small piece of poor ground—first breaking it up well. The rows were made three feet apart, and the stalks left about a foot apart in the drill. The ground had been very foul last year with crab grass, whose seed matured. The corn was not well up this spring before the grass began to appear. When the corn had about four or five blades, the young grass completely covered the ground, and the corn was turning yellow. I spread a small quantity of stable manure around the corn, and covered the whole ground three or four inches deep with leaves from the forest, taking care to do this when the ground was wet, and the leaves also,

that they might not be blown away, and to leave the tops of the young corn uncovered. In ten days there was not a particle of living grass to be found, and the corn had put on that deep bluish green which always betokens a healthful condition of the plant.

From the day the corn was planted until after the fodder was pulled and the tops cut, nothing more was done with it, and the result is a product at the rate of *forty-two* bushels to the acre—about one third of the stalk having two ears on each of them.

I noted in the course of the summer, the following facts:—

1st. The corn treated thus, was always ahead of some planted alongside of it, and treated in the usual way.

2d. It ripened at least ten days sooner than other corn, planted at the same time.

3d. During the hottest and driest days the blades never twisted up, as did other corn in the neighborhood.

4th. In the driest weather on removing the leaves the ground was found to be moist to the surface, and loose, as deep as it had been at first broken up.

5th. The heaviest rains had scarcely any effect in washing away the soil or making it hard.

It certainly will require less labor to produce corn in this way, than in the usual mode. And even if it required more we have the consolation to know, that while, by the old mode, every hour's work is an injury to the land, by this mode every hour's work is making the land better; for few things can be better manure than the coating of leaves put on in the summer, when ploughed in the winter or spring following.

I used leaves raked up in the forest, because of these there is an ample supply within the reach of almost every person; and because there seems, from my observation, to be a strong antipathy between dead and decaying forest leaves, and crab grass, that most harassing foe of agriculturists.

I make this communication, as I have already said, with hesitation, because the idea of raising corn without ploughing and hoeing, and at the same time improving the land, protecting it against the influence of a scorching sun and washing rains, is so directly in the teeth of the universal practice for ages. The thing is, however, at least, worthy of further trial. It may lead to most important results. Those who think the plan worth any attention, may easily make an experiment with an acre or two, and note carefully its progress through the summer. If they are satisfied, after the trial, that there is anything in it, to extend the operation will not be a difficult matter.

If, on experiment, it should be found advisable to extend the operation, the proper way would be, I think, to collect the leaves in winter, and deposit them in heaps on the ground on which they are to be used, and the next spring, during a wet season, after the corn is up, spread them, taking care to leave tops of the young corn uncovered.

There is one very important result that must follow the success of this plan on a large scale—and it was with an eye chiefly to that result, that my experiment was undertaken. The constant

excuse for not improving our land, is, that where cotton is grown, the time necessary, first to cultivate the growing crop properly—next to gather it, and then to prepare for a new crop, leaves the planter no time to collect manure. My plan will put an end to that excuse at once; for wherever leaves are to be had, half the time usually bestowed on working the corn crop in the usual way, spent in gathering leaves and putting them on the ground, instead of ploughing it, may in a short time accomplish every thing that can be desired in the way of manuring.

Why may not the same process answer in the cultivation of cotton? If it keeps the ground soft and moist, and prevents the growth of grass and weeds in a corn crop, it will surely have the same effect with cotton—and be the means, further, of preserving the cotton, when the bolls open, from all the injury it sustains from the soil in wet seasons. This is, however, but speculation. Let it be tested by actual experiment.

JAMES CAMAK.

Athens, Ga. Oct. 10, 1835.

POTATOES AND SMYRNA WHEAT.

To the Committee on Agricultural Products, presented for the several premiums offered by the Trustees of the Massachusetts Agricultural Society:

Gentlemen—The field on which Potatoes were grown the present season, was broken up in August, 1834. The soil a deep loam, suitable for grain, (Chesnut land.) Early last spring the field was cross-ploughed, and 18 cords unfermented manure, evenly spread, and deeply ploughed in; sods harrowed down, then furrowed 3 feet apart, and seed placed 18 inches apart in the furrows, and covered 2 inches deep; hoed twice previous to being in the bud. On the 6th October, the vines or tops generally covered the ground, the cutting of them for fodder commenced. These tops, after drying 6 or 8 days, were packed away in the barn with wheat straw sprinkled with salt, say one peck to the ton, and will probably be equal in value to one-half a ton of hay. It is believed, that when hay is as scarce as it is in this vicinity the present season, say worth \$20 per ton, potato tops will more than pay for the expense of cutting and curing them; they are good food for neat cattle. The harvesting the roots was completed October 12th, when, by careful measurement the crop was found to be 515 bushels on the acre. The quantity of seed was 28 bushels; 26 the reds of La Plate, 2 the Roxbury whites.

PAYSON WILLIAMS,
JACKSON D. WILLIAMS.

Worcester, ss. Oct. 16, 1835.—Then the above named Payson Williams and Jackson D. Williams, made oath that the above statement, by them severally subscribed, is true. Before me,
EBEN'R. TORREY, J. P.

Expenses of Potato Crops.

Breaking up the field,	\$4 00
Carting manure,	5 00
Cross ploughing and ploughing in manure,	6 00
Its proportion of 18 cords manure,	20 00
28 bushels seed at 2s.	9 33

Labor in 2 hoeings,	8 00
Labor in harvesting the crop,	22 00
Labor in cutting and curing the tops,	3 00
	\$77 33

515 bushels at 25c.	\$128 75
Tops,	10 00

\$138 45 Profit, \$61 42

Expenses of Wheat Crop.

2½ bushels seed,	\$4 50
Two ploughings,	5 00
Bushing and rolling,	1 00
Its proportion of manure in 1834,	15 00
Cradling and thrashing and cleaning up,	12 00

\$37 50

35 bushels, worth,	\$70 00
Straw,	10 00
	\$80 00
Profit,	\$42 00

The field on which potatoes were grown in 1834, was well ploughed as early in the following spring as practicable, and 2½ bushels of the Smyrna or Black Sea Wheat was sown, (second week in May, 1836,) ploughed in, bushed, and rolled.

Crop harvested first week in August; thrashed (by horse power) in September, and after being carefully cleaned and measured, was found to be 35 bushels (of 60 lbs. to the bushel,) from the acre.

A much larger crop would have been grown but for the encumbrance of a granite ledge, pervading a considerable part of the field, many rods of which approach within six inches of the surface. The drought of last summer severely pinched the wheat on the ledge.

PAYSON WILLIAMS,
JACKSON D. WILLIAMS.

Fitchburg, Oct. 15, 1835.

Worcester, ss. Oct. 16, 1835.—Then the above named Payson Williams and Jackson D. Williams, made oath that the foregoing statements, by them severally subscribed, are true. Before me,

EBEN'R. TORREY, J. P.

I, Philip F. Cowdin, sworn surveyor of the town of Fitchburg, and county of Worcester, have this day measured a certain plat of ground on which potatoes were grown the present season, owned by Payson Williams, of said Fitchburg, and found the same to contain one acre and no more.

Also, one other field on which was grown wheat the present season, owned by said Williams, and found the same to contain one acre and no more.

P. F. COWDIN.

Fitchburg, Oct. 15, 1835.

[From the Farmers' Register.]
ON TARRING SEED CORN.

King & Queen county,
February 19th, 1836. }

Agriculture is evidently the source of wealth, energy, and support of every country, and in none should it be more regarded as such, than in the United States. Every thing, therefore, which

leads to instruct the farmer should meet with his grateful acceptance, and be looked upon by the community at large as a *public good*. I have frequently observed premiums granted by the various agricultural associations in our country to those persons who furnished them with the most approved methods of husbandry. I do not propose myself as a candidate for such honors, and yet I hope what I have now to communicate will be as extensively useful to the farming interest as many plans already devised. Almost all the tide-water section of our State is emphatically a *corn growing* country; hence, whatever course has a tendency to increase its product and lessen the labor of cultivation, must be deemed valuable. As the season for planting this great staple is rapidly approaching, permit me to suggest a few hints as to the excellent mode of preparing the seed corn.

Every farmer is well acquainted with the trouble and perplexity, he is subjected to in replanting his corn, merely on account of crows, blackbirds, moles, squirrels, &c., which are ready (after the severities of the winter) to welcome him to the field as their benefactor. No sooner has he planted his field over than he may begin the laborious and disagreeable task. These rioters very frequently, indeed, invariably, by their depredations, cause a great deal of unnecessary labor. This is an evil—and how is it to be remedied? Such a remedy must be of great importance to the farmer especially, and to the public in general. This is what I design to communicate—and it is as follows:—

I have for several years past previous to planting my corn, put it into a vessel, and put thereto as much tar (made thin by warming it a little, and diluting with three parts water) as would thoroughly wet the whole—then taking it out and mixing some plaster or unleached ashes by rolling them well together, which made it ready for planting immediately. This method has prevented the trouble of re-planting—the coat of tar and plaster being a preservative for the grain, and is a nauseous drug to these troublesome gentry, who so often rouse the anger of the farmer to no purpose. This is a method easily practised, and undoubtedly deserves the attention of the farmer.

If this should prove equally useful to such as wish to give it a fair trial, as it has with those who have already made the experiment, the communicator will think himself abundantly rewarded.

HUGH CAMPBELL.

DISEASE OF THE HEART IN SHEEP.

A worthy old Ewe, belonging to the flock of E. Wood, Esq. in this town, (Winthrop, Maine,) fell sick a month or two ago, and grew lean and poor. Her owner finding that her death was inevitable, killed her and subjected her as every flock owner should in similar cases, to dissection and examination. The following items of the *post obit* examination have been obligingly furnished by him. She was quite old, and with lamb—finding that she was sick and failing, he separated her from the rest of the flock and fed her alone, still she grew leaner and more feeble, although her appetite continued, and finally she was killed. Every part of the body and intestines had a healthy appearance. But on the examination of the

heart it was found to be in a dropsical state. The heart case contained more than a gill of watery fluid, and one lobewas found to be weak, flabby, diminished in size, and evidently wasting away. There was no paleness of the eye—the skin had began to grow pale a little—appetite continued moderately good, and the stomach was full when she was killed. The owner considers the disease a species of the rot, what he calls “misplaced rot,” and states that it is the third case that he has had in his flock in the course of a few years. —*Maine Farmer.*

[From the New England Farmer.]

Some remarks on Temperature considered in relation to vegetation and the Naturalization of Plants.

The natural distribution of the vegetable kingdom over the face of the globe, as affected by various causes, and chiefly by the temperature of the different countries and continents, is one of the most interesting of all subjects. As the illustrious Von Humboldt has observed, it is “intimately connected with the physical world in general. Upon the predominance of certain families of plants in particular districts, depend the character of the country and the whole face of nature; and the natural congregation of vast masses of vegetation of the same character in particular countries has produced most important effects upon the social state of the people, the nature of their manners, and the degree of development of the arts of industry.”

The difference of vegetation, as exhibited in the torrid, the temperate, and the frigid zones, is sufficiently familiar to every one. The equinoctial regions, abounding with their splendid vegetation of lofty palms, bread-fruit trees, plantains, and bananas, laden with huge masses of nourishing food, differ as widely from those portions of the earth lying in the temperate zones, where the vine flourishes in perfection, and the cereal grains furnish the chief means of subsistence to man, as the latter does from the arctic regions, where the grasses and cryptogamic plants still keep up the diminishing scale of vegetable life, and contribute to the support of a higher class of organized beings. It is probable that almost every country produces naturally in its vegetation, sufficient means for the subsistence of man; either directly, as in the torrid and temperate regions through the medium of delicious fruits, esculent roots and seeds, or indirectly, as is partially the case in the temperate and frigid divisions through animal life, which primarily subsisted upon vegetation in some of its forms. But man in a civilized state, especially in those countries where climate forbids nature to lavish her bounties in the greatest profusion, has refused to be satisfied with her supplies, and has delighted his taste and gratified his wishes by assembling around him as far as possible, the productions of other countries, either to embellish his habitations, or satisfy his appetites. Hence many plants, which were exotics, have become so acclimatised or naturalized, as to afford the principal food of their inhabitants, and the staple productions of their soils. The vine and fig, which are the boast of France, are not indigenous there. The orange that produces its beautiful golden fruit in

the south of Europe and our own country, is a native of Asia. Some of the commoner grains have followed civilized man in his migrations for such a length of time that it has now become difficult to say which was their native country. This is the case with wheat, millet, and buckwheat, and many other grasses which it is supposed are indigenous in the oriental countries. How much we are indebted to other climates and other countries for our most valuable necessities and luxuries in the vegetable kingdom, a single thought will convince us. Wheat, rye, and most of the other grains, cotton and rice, the staples of our soil have all been imported here; and our most delicious fruits owe their origin to other lands. The peach is from Persia, the apricot from Armenia, the cherry from Pontus, and nearly all our finest cultivated varieties of apples, pears, plums, &c. from Europe.

These preliminary remarks lead us to reflect how much the arts of culture are indebted to the property which many plants have to a certain degree, of becoming naturalized in a country where the variations of temperature differ from those of their own; and it may lead us also to investigate the most successful methods by which such exotics, natives of warmer climates, as may be valuable to us either in an useful or ornamental point of view, may be so naturalized as to be either partially or entirely able to withstand the severity of our northern winters. That a large proportion of the vegetation of the tropics, can never become acclimatised in regions liable to severe frosts, is evident to every one; but that a number of highly valuable plants, natives of peculiar situations in those countries, and more particularly those of the intermediate parallels of latitude, have been, and may be naturalized here, the history of Agriculture and Horticulture affords ample and abundant proof. Plants of rapid and bulky growth, succulent and tender stems, natives of the warmest districts, can never be for a long time exhibited in a state of vegetation here, except in an artificial temperature: But annual plants, and trees, and shrubs, with strong woody stems, particularly if natives of elevated tracts, as the sides of mountains, and the tops of high table lands, may always be considered as affording probabilities of a capacity for naturalization in a colder region.

A method universally known, and which we are inclined to place foremost among the resources for the naturalization of plants, consists in sowing continually the seeds of the plant under trial, for successive generations and from seeds produced in the country into which the plant is introduced. This, though in many cases a lengthy and somewhat tedious process, is, we believe, the same by which the most extensive and valuable naturalizations have been effected heretofore. The more tender fruits, as the peach, cherry, apricot, and almond, have doubtless been rendered hardy in this way: each new generation possessing perhaps diminished vigor, and acquiring a more robust and hardy constitution. Although it would have been difficult, perhaps impossible, to have altered the contexture of the original tree if otherwise continued, (whether by cuttings, suckers, or layers,) yet from reproduction from seed each generation became a little more capable of withstanding the effects of a low tempera-

ture, until the desired result was in a measure, or wholly obtained. It is obvious, however, that the result brought about is not the naturalization of the *original* species of tree or plant, but, as Professor De Candolle justly observes in his “*Physiologie Vegetale*,” of the *improved variety* produced from seed, and which has acquired in its contexture a diminished susceptibility of cold. The effects produced by this mode of naturalization, are even more abundantly exemplified in the case of herbaceous and annual plants, than among ligneous trees and shrubs. As an instance of this, we may refer to the common Indian corn, which was undoubtedly originally a native of South America and the southern parts of this continent, but of which so many varieties have been produced by cultivation, that it may be said some particular one can be found naturalized and adapted to any parallel of latitude, from the equator to the 45°, and in Europe to the 55° of latitude. *This is often produced in annual plants, not so much by rendering the plant itself less sensible to cold, for in many cases this is scarcely at all affected, as by producing improved varieties, which shall ripen their seed and come to maturity in a cold climate, in half, or even a fourth of the time necessary for that purpose, in the country where the species is originally a native. Thus the rice, so important an article of food to the natives of the East, was probably first cultivated in Ceylon and Java, whence it spread all over India, Japan, and the southern provinces of China, and the United States. It has also been introduced into Italy, Spain, and the south of France, and we perceive that lately an improved variety has been found sufficiently hardy to produce abundant crops in the comparatively cold climates of Hungary and Westphalia. Rice may now therefore be considered naturalized as far north as 46° in the old world. The luscious fruit of the melon, and the cooling one of the cucumber, can scarcely be brought to maturity if the seeds are direct from the more southern climates where they are natives; but improved varieties have sprung up by culture, so perfectly naturalized as to produce abundant crops in almost every part of the United States. The horticulturist should never therefore reject even an annual plant, which will not come to maturity immediately without artificial aid in our climate, but if the subject is worthy of the pains, he should endeavor by the aid of artificial shelter if necessary, to procure the seed and sow it under the most favorable circumstances during several successive generations, when it will probably at last produce him a variety which will withstand the severity of the climate, or come to maturity sufficiently early to escape the destructive effects of too great an abatement of temperature.† Con-

*Cobbett's corn, which he brought to maturity in the short and cool summer of England, is, we believe, a very early variety from Canada.

†As a proof of the effects of a renewed reproduction from seed, we may mention that we planted the present season in a favorable situation a quantity of seed of the Lima bean, direct from its native country, latitude 14 degrees S.—the plants produced, however, scarcely attained the period of flowering before they were destroyed by the frost, whilst the plants in their immediate neighborhood, the produce of a variety of the same bean, naturalized in the country, yielded as usual abundant crops of matured seed.

sidered in this light the green-house may become one of the most useful, as well as ornamental and pleasing sources of enjoyment to the experimental horticulturist and the public generally.

We must not leave this part of the subject, without adverting to the advantages which may be obtained by artificial fecundations and impregnations, of highly ornamental or useful exotic plants, with more hardy species or varieties of the same genus; the produce of which may be highly superior varieties, having all the beauty or excellence of the tender species, and perhaps nearly the same robustness of constitution as the hardy one. We conceive it to be a method, by which, now that artificial hybridizing is so well understood, the most valuable results may in many instances be produced in a comparatively short space of time.

The choice of situation and aspect is another important consideration in the naturalization of plants. We never place a plant of a delicate nature in aspects exposed to the utmost inclemencies of the weather—in situations open to the fury of the coldest winds, or the raging of the most boisterous storms. We naturally seek on the contrary to place them in a sheltered situation, in an aspect favorably disposed to catch the genial rays of the sun in summer, and to prolong as much as possible the duration of that favorable season. Hence the use of walls and trellises, and the choice of particular aspects best calculated to favor the object in view. In England, many fruits require a wall, to come to maturity, which ripen perfectly with us as standards, and although walls are as yet but little used here, we can easily imagine that many partially tender trees and shrubs, might be brought to perfection upon them, which the inclemency of our winters forbid us to cultivate in the open air.

Apart from shelters of this description, the character of the soil and situation demands the utmost attention. Soils that are of a cold, clayey and heavy texture, particularly if they retain water, are totally unfit for the growth of tender plants. They should be planted in a light, friable, and porous soil, as dry as the peculiar constitution of the plant will admit, for not only is a wet soil more liable to be deeply frozen, but also the exposed parts of the plants which grow in it. Even hardy and naturalized trees are often severely affected by the cold in a soil saturated with moisture. The philosophy of this is well known to every physiologist. In moist soils, the plant is surcharged with watery fluid, the annual depositions of wood are large, but not firm and well calculated to resist the intensity of cold; the leaves are longer completing their articulations with the stem, and as a consequence of this the young shoots are continued longer in a growing state, and remain succulent and unripened at the approach of winter, when the first severe frost destroys their vitality. Besides these facts, it is well known that water, (and the sap of plants in its primary state is but little more, is a better conductor of heat and cold than either the woody fibre of trees, or the particles of air which occupy, in some measure, the place of a watery fluid in a well ripened branch. Susceptibility to injury by frost in ligneous plants, is therefore increased with the presence of watery fluid, and diminished by the presence of firm well ripened annual lay-

ers of wood. A knowledge of this fact is of the greatest importance to the agriculturist, in the selection of soils and situations for crops which are but imperfectly naturalized. We may illustrate this by remarking, that plantations of the Chinese Mulberry, (*Morus Multicaulis*, a tree that is justly exciting the greatest attention in this country, and which deserves every effort at complete naturalization,) which were situated upon dry gravelly soils, even if in cold aspects, withstood almost perfectly the extreme rigors of the last winter in the eastern states, when extensive fields of the same tree, in moist soils, were entirely cut down to the ground in a great majority of instances.

In Europe the advantages of a dry soil for the naturalization of plants are well known, both theoretically and practically, and many plants that formerly required the protection of a green-house, are by the proper choice of dry and porous soils, inured to the severity of ordinary winters. So well is this subject understood in England and France, that Camellias and Oranges have in favorable situations been quite naturalized. In the latter country it is quite remarkable how many comparatively tender exotics, generally protected in green-houses, are preserved perfectly in large barn-like buildings, without the aid of fire, during the whole winter. "The secret of this," Loudon observes, "lies in the dryness of the air of France, and in the gardener having previously by withholding water, matured the growth of the leaves and ripened the wood; in short, in his having reduced the plants to a dormant state before housing them." In cases where it is desirable that the utmost pains should be taken, as in the case of new and rare shrubs, creepers, &c., the gardener will facilitate the object in view by trenching the soil and artificially producing a subsoil by underlaying the surface mould with a strata of stones or very coarse gravel: thereby checking too vigorous a growth, causing a small but firm annual deposit of wood, and placing the vegetable in a state of rest long before the winter frosts commence.

A variation of this mode of naturalizing, consists in placing many tender kinds of herbaceous plants, and small shrubs upon dry rock-work or aggregations of stones mingled with soil, where they are found to thrive perfectly. We observed in the Botanic Garden at Cambridge, Mass., an *Azalea indica* and a species of *Erica*, that had braved the exceedingly low temperature of nearly 30 deg. [Fah.] below zero, the past winter, having been planted for several years previous in a mass of rock-work, where they had annually matured their wood in the most perfect manner. Those persons who are acquainted with the comparative delicacy of these plants, in a climate so cold as that of Massachusetts, will appreciate at once how thoroughly they had become naturalized by this simple process.

Naturalization by external protection, next deserves our attention. It is a common practice to protect many shrubs and trees with a covering of straw or mats at the approach of winter, during their young state, knowing that as they become stronger and more bulky in size, they will also acquire additional hardihood. This is an effectual practice in its way, and we believe that considered as an auxiliary in naturalization,

some useful hints may be gathered in relation to it from recent discoveries made in the physiology of plants. It was formerly the opinion of some savans, among others Hunter, Schœpf and Salome, that vegetables having a circular system of fluids and a sort of respiration analogous to those of animals, ought to have therefore, and had, a property of developing a certain quantity of caloric or heat within themselves. Recent experiments, however, made by Schutzer and Halder, and more latterly by Dr. Goeppert, of the Botanic Garden of Breslau, seems to have proved, that "vegetables appear to retain a certain medium temperature, which cannot however be considered as originating from heat evolved by the functions of the plant, but can be satisfactorily explained by a reference to the bad conducting power of the vegetable fibre, and the wood by which the temperature of the surrounding ærial strata, penetrate but slowly into the interior of the plant." What we would wish to deduce directly from this, is, that many woody plants on which it is proposed to try acclimatizing experiments by external protection, might in many instances with more chance of success, be reared under shelter until they attained considerable thickness of stem and induration of wood, when they would from their increased non-conducting capacity, be much better able to withstand the cold, if protected a few seasons, than the same species, if reared from infancy in the open air. As an illustration of the advantages which size and diameter of stem give to tender trees in withstanding rigorous cold, we may mention that we saw in the nurseries at Philadelphia, the following trees, viz: *Acacia julibrissin*, *Pinckneya pubens*, *Magnolia grandiflora*, and *G. elliptica*, *Gordonia pubescens*, &c., of some twenty or more years growth, that had survived uninjured during the past winter, (unparalleled for depression of temperature for fifty years past,) the extraordinary low temperature of 12 deg. or more below the zero of Fah., or 44 deg. below the freezing point.—That this was owing in a great measure to their having become naturalized in that locality, there can be no doubt. But the ordinary lowest temperature of Philadelphia is some 20 or 25 deg. above that of the last winter, and we conceived that these trees survived so perfectly the increase of cold only by virtue of their large size, thickness of bark and wood, and the consequent thickness of non-conducting substance, to protect the juices of the plant and vital organs from the effects of frost.

The simplest and perhaps most effectual method of preserving plants by external protection, is to be found in the well known practice of enveloping either the whole or a portion of the stem and branches with covering of dry straw, pieces of Russia matting, or moss and hay, firmly bound with straw ropes. For small plants, boxes or empty casks, with a light in the top, (or which is preferable, in the north side,) are often used.—The branches of evergreen trees, as the pine, hemlock and spruce, where they can be procured, are excellent materials for this purpose. It is, we believe, customary in some parts of France where the fig is extensively cultivated, to bend the branches down to the earth every autumn and cover them with a thin layer of soil: in this

way the fig, though a tender tree, can be cultivated to a great extent in the northern districts.

We strongly suspect after all that has been said of protection externally, against the influence of cold, that the evil effects which plants suffer, arise not so much from the *congelation* of the exposed parts of vegetables, as the *rapid and hasty thawing* to which they are often exposed in this climate by the sudden influence of the sun after continued cold. Who has not witnessed some tender tree on the north side of a wall, some few herbaceous plants in the shade of a hedge or fence, or even the grass in the northern exposure, preserving their greenness and vitality through the chilly season of winter, when their equally tender neighbors exposed to the sun, have suffered severely, and even perish entirely? The cause of all this is, probably, that the sudden glancing of the warm sun upon frozen branches, leaves or roots of the tender vegetable, *causes a sudden dilation in the crystals of ice*, that are formed in those parts, which, consequently, in their expansion distend and rupture the spiral vessels, and other parts filled with semi-fluid matter, and destroys those organs of the plant necessary to its vitality; in short, something takes place analagous in its effects to the bursting of the blood-vessels in the animal system. This is very striking in the splitting of the stems of large trees that occasionally happens in cold climates, and is often attended with a loud noise.

In all northern countries where the earth receives an annual coating of snow, the husbandman is well aware how beneficial to his fields is the protecting mantle of nature—so much so that in this country it is a common saying among farmers, that a covering of snow is equal in its beneficial effects to a coat of manure. The benefits in many cases are not exaggerated, for the snow not only prevents the loss of the internal heat of the earth by radiation and thus protects vegetation upon its surface, but has also a powerful influence in shielding the exposed parts of plants from the alternations of freezing and thawing, and the injury they would receive from the sudden action of the sun when in a frozen state. The results are not less beneficial upon a smaller scale to the horticulturist, while it affords him also a hint of the efficacy of slight coverings over plants near the surface of the earth, as in this manner many of the herbaceous and stemless plants of the south may be preserved in security during our winters. We should not forget to mention in this brief essay, the idea first put in practice we think by the enlightened M. Soulange Bodin, of the horticultural institute near Paris, of attempting naturalization by grafting partially tender species of plants, upon hardy species of the same or a kindred genus, able to withstand the effects of cold. The success of his experiments at the time the results were made known was flattering. His method was to graft upon large robust stalks, at some considerable distance from the ground, availing himself thereby of the protecting properties of the stalk, and of the power which he conceived it to possess of maintaining its temperature, by the communication which its deep roots had with the warmer soil. We believe this mode of naturalization might be very effectual south of the Potomac, where the soil is never very deeply frozen, in acclimating trees and shrubs of

still warmer climates, and we recommend it to the attention of the horticulturist in all cases where practicable in this region.

It is proper to remark here, that persons about to make experiments in naturalizing plants, should when they choose a locality endeavor to avoid all low valleys, especially if abounding with springs or streams of water, as the most unfavorable of all situations for the attainment of the object in view, on account of their being more subject to early and late frosts in autumn and spring, and to intense congelation in the depths of winter. Extensive slopes, however, by the sides of large rivers and other bodies of water, are excellent sites for the purpose. Some of our large inland lakes, those immense bodies of water which are rarely frozen over, have an astonishing influence in ameliorating the severity of the winters in their neighborhoods, and many tender plants might be naturalized in their vicinity, and thus become adapted through their progeny to much colder situations.

Such are the principal facts already known, which should claim the attention of all persons whom pleasure or interest may induce to attempt the naturalization of plants in this country. Although it is a practice which has hitherto proceeded nearly at random, and has been rather the amusement of the amateur cultivator, than an object of careful attention, we are persuaded that with a portion of the assiduity directed toward it that the other branches of horticultural science have received, it may become the means not only of a great increase of gratification to the horticulturist, in the acquisition which the garden receive of beautiful and valuable flowering trees, shrubs and vegetables, but also that it may to a certain degree be productive of very considerable advantages to the agriculture of our country. The United States embrace almost every desirable variety of climate, and we believe that in time the greater majority of useful and beautiful productions of the vegetable kingdom, may be successfully produced in our own territory. We confidently anticipate the period when the vine and the silk culture shall be carried to maturity in the extreme northern portions of our country, as the olive, the cocoa, palm, the plantain and banana, the cochineal-cactus, and even the tea plant, will in time, undoubtedly, flourish in perfection in the southern portions of it. With so extensive a range of climates, the field for experiments is equally extensive; varieties of the different productions may be originated, suitable for numerous localities and latitudes; and soils and situations may be chosen best adapted to the naturalization and cultivation of the different plants. Nature has already furnished us with the most extensive variety of vegetation, to be found in any temperate region, and it is only necessary for art to second her intentions and our country may boast of all that is most delightful and gratifying to man among the products of the soil.

In the meantime we look to our horticultural and agricultural societies, composed as they are of the learned, scientific and practical portion of the community who are devoted to these subjects, for the increase and dissemination of information relating to them—for the report of such experiments and facts as have already been made

and ascertained, and the encouragement of new and more extensive trials and experiments in the different sections, soils and climates of our fertile and highly diversified country.

A. J. DOWNING.

Botanic Garden and Nursery,
Newburgh, N. Y., Dec. 10th, 1835. }

[Communication.]

TO THE PUBLIC.

The present may be truly called an age of improvement, the expansion of science, and its application to the useful, as well as mechanical arts, has imparted an Economy to the works of labor, in almost every department, of valuable import, and enduring utility. Knowledge has been denominated power in every age, and the genius and inventions of our Franklin and Fulton, have clearly demonstrated it to the present, and I trust succeeding ages. The subscriber in giving to the public an outline of his humble, but he hopes useful and beneficial invention, invokes no improper comparisons, but merely endeavors to contribute his might to the accumulated knowledge of the country. His invention is an improvement in the construction of furnaces by which heat may be increased or decreased at pleasure, regulated and concentrated to any fixed purpose, for which he has obtained a Patent. This Invention is appropriately applicable to Lime burners, Brick makers, Potters, Smelters, and Founders where wood or Bituminous coal is used as an agent to generate heat. The utility and economy of this invention is, that if wood be used as an agent it will be charred into coal—if bituminous coal be used or applied, Coak will result—which, in either case, will be a saving of nearly the original price of the wood or coal. In cities, large towns, or their vicinities, where fuel is an article of some consideration, this invention will prove of primary importance, and the more especially, as charcoal and stone coal are in great and increasing demand for various and useful purposes. By this invention the expense and waste of wood will be saved in making charcoal. By it the use of bituminous coal no ashes will arise to injure lime. By actual experiment in testing this invention, it has been satisfactorily proven, that anthracite coal answers a valuable purpose. A further description of this very economical and useful invention is deemed unnecessary here; those disposed to purchase state, county or single rights, will please apply to the subscriber (if by letter post paid) Union Mills, Frederick county, Maryland.

N. B. Prices for state, or county, or single rights will be moderate.

JOHN OWINGS.

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GAME CHICKENS.

FOR SALE, five dollars a pair, Game Fowls, warranted to be of genuine strain. Apply to the editor,

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	8 00	9 00
CORN, yellow,.....	bushel.	80	81
White,.....	"	—	75
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18½	20
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's,.....	"	7 50	8 00
Do. do. Superfine,.....	"	6 75	6 81
SuperHow. st. in good de'd	"	6 75	—
" wagon price,.....	"	6 75	—
City Mills, extra,.....	"	—	7 00
Do.	"	6 62	—
Susquehanna,.....	"	6 62	—
Rye,.....	"	5 00	—
Kiln-dried Meal, in hhds.	hhd.	—	20 00
do. in bbls.	bbl.	—	4 50
GRASS SEEDS, red Clover,.....	bushel.	5 25	—
Timothy (herds of the north)	"	2 50	3 00
Orchard,.....	"	2 75	3 25
Tall meadow Oat,.....	"	2 25	2 75
Herds, or red top,.....	"	87	1 25
HAY, in bulk,.....	ton.	18 00	—
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	—	9 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	33	35
MUSTARD SEED, Domestic,.....	"	—	—
OATS,.....	"	44	47
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	—	1 12
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	4 25
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	95	97
Susquehanna,.....	"	—	97
TOBACCO, crop, common,.....	100 lbs	4 75	5 00
" brown and red,.....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 75	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	1 38	1 40
Red,.....	"	1 30	1 38
WHISKEY, 1st pf. in bbls.....	gallon.	36	37
" in hhds.....	"	35½	—
" wagon price,.....	"	34	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	2 25	—
To Wheeling,.....	"	3 00	—
Wool, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.....	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,.....	"	38 40	23 24

A HERD OF DURHAM STOCK
BY AUCTION.

THE entire herd of the late Dr. Hosack, at Hyde Park, New York, 7½ miles above Poughkeepsie, will be sold on the 20th of May, by auction.
ALSO 100 Bakewell Sheep.
may 3

Printed by Sands & Neilson, N. E. corner of
Charles and Market streets.

BALTIMORE PROVISION MARKET.

	PER.	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	15	17
Shoulders,.... do.....	"	12	—
Middlings,..... do.....	"	13	14
Assorted, country,.....	"	13	13½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	22
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	20 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	—	1 87
CHOP RYE,.....	"	—	1 87
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	8 00	—
No. 2,.....	"	6 75	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 2, 9 25;—No. 3	"	—	6 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	—

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours. Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50a75 cents, 1a\$2 each. A liberal discount will be made when I doz. or more are taken.
ROBT. SINCLAIR, jr.
may 10 Light, near Pratt street whf.

FLOWER SEEDS,

Time of planting most sorts about 15th May.
150 kinds FLOWER SEEDS, finest selection of annual, biennial and perennials, put up in papers at 64 cts. each, or \$5 per 100.

R. SINCLAIR, jr.
may 10 Light near Pratt st. wharf.

PUBLIC SALE OF IMPROVED DURHAM
SHORT HORN CATTLE.

THE subscriber will offer for sale in Wilmington, Del. on Saturday, the 21st day of May, his STOCK of improved DURHAM SHORT HORNS, consisting of 6 BULLS from 1 to 2 years old, 8 COWS, and 5 HEIFERS. Sale to commence at 10 o'clock, A. M.
may 10 SAMUEL CANBY.

FARMERS' REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25, 1830.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving Bottoms \$30, with extra pair of knives.	do	do	do	\$33
11 " Permanent Bottom 28, do do do	do	do	do	31
13 " Permanent Bottom 43, do do do	do	do	do	48
13 " Revolving Bottom 45, do do do	do	do	do	50
15 " Revolving Bottom 50, do do do	do	do	do	56
20 " Large size fitted for horse-power 80, do do	do	do	do	90

His variety of Ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality, and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass Seed of superior quality.

mh 22—eo2m JONATHAN S. EASTMAN.

AGRICULTURAL IMPLEMENTS, GRASS
SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted, Wove wire for screens, fans, cellar windows, safes, &c. Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment extra castings for ploughs of all kinds, Thrashing machines, Horse powers, Mill work, window weights, &c can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffle oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

GAMA GRASS ROOTS.



5000 Gama Grass Roots, just received. Price \$2 per 100. This grass still retains its high character for soiling and great products. Also in store, a few pounds of GAMA GRASS SEED. Price \$6 per pound or 50c. per ounce. And will be for sale in a few days, 1300 Double Dahlia FLOWER

ROOTS, embracing all the finest and most rare sorts.—Price 50 a 75 cents, \$1, 1 50 a \$2 each. A liberal discount will be made when one dozen or more are taken.

R. SINCLAIR, Jr.

ap 26

Light, near Pratt st. wharf.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 3.

BALTIMORE, MD. MAY 17, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 17, 1836.

CORN PLANTING.

As we hear from almost all directions, that many persons have not completed planting their corn, and as the season is late, we would advise all who may yet have corn to plant, to take measures to give it a prompt start in its incipient vegetation. A shovel full of vegetable mould, or of the scrapings of ditches, cellars, gutters, or roads, in addition to the usual quantum of manure, will be sufficient to effect the object in view. If neither of these substances be attainable, a pint of ashes cast into each hill would answer,—and whether the one substance or the other be applied, a table spoonful of plaster should be put on the hill after the corn comes up. With these appliances, we doubt not that much more than all the disadvantages attendant upon the lateness of the season will be obviated, and that good and profitable crops will be thus secured.

The corn crop being in many districts of our country the main reliance for human sustenance, as well as for that of stock, in our present relation and circumstances, we feel that it is our duty to call the attention of farmers to the subject, not because we believe that there is any thing new in what we have said, for there is not; but that a hint timely given, even of the most ordinary routine of duties, frequently serves to admonish one of matters necessary to be performed, but which for the want of it might have been omitted.

If we are to judge of the crops of grass from present appearances, we should say that the husbandman has not much to cheer him with regard to his next winter's supply of hay; for although there has been no lack of rain the present spring, yet it mostly visited us under such disadvantageous circumstances of cold and frost

that it benefitted vegetation but little, and ever since the temperature of the atmosphere has been meliorated, say about two weeks, we have had a continuation of drought. As it is the part of wisdom to provide against contingencies, though they may only rest on possibility, we would ask whether the prudent and discreet farmer should not take prompt and efficient measures to prevent the occurrence of an evil so disastrous to his success, and so full of discomfort to his stock, as would be a scarcity of provender.

If our suggestions be well founded, and we think they are, then the inquiry as to the measures to be adopted becomes of vital importance, not only to individuals engaged in agriculture but to the community at large; for whatever strikes at the productions of the husbandman disastrously, pierces the interests of every other branch and ramification of which the great whole is composed.

At this early period of the season then, resources are manifold and ample. *Millet* and *Indian Corn* may be sown broadcast, and will produce from two to four tons of hay, according to the quality of the land and the thickness of its being sown. One bushel of *Millet* and from 3 to 4 of *Corn*, will be seed enough for an acre of land.

Then there are the *Ruta Baga* and *Mangel Wurtzel*, *Cæsarean Kale*, *Potatoes*, *Beets*, *Turnips*, *Parsnips*, *Carrots* and *Cabbages*, which will all come in excellent play: nor should we forget to mention the *Pumpkin*, of kinds.

The commissioners appointed for that purpose have given notice that they will open books in the town of Belvidere, N. J., on the 23d instant, to receive subscriptions to the capital stock of the New Jersey Silk Manufacturing company. It is intended to raise \$300,000 for the purpose of carrying on the growing of the Mulberry, raising of the silk and the manufactory thereof.

Spring Cider—The Franklin (Mass.) Gazette, says—A lot of ten barrels of very fine cider was made on the 1st inst. by Mr. F. Strickland of this town, from pomace which had been frozen in the press and remained there through the winter. A farmer in Deerfield made cider a week or two since from a quantity of apples which were left in the winter, and came out bright, fresh and unfrozen in the spring.

[From the Eastern Whig.]

No. I.

To the People of the Eastern Shore.

On the day the Legislature adjourned, I wrote a note to two editors of newspapers, indicating a desire to trouble their types a little, as soon as I returned home and could find leisure, on the subject of the proposed *Eastern Shore Rail Road*; but although the balance of that letter was published, I am not aware the only part which I desired should meet the public eye was ever published, and that was for an invitation speedily to take up the subject for their sage consideration. I am aware that those of our countrymen whose vision has been bounded by the sensible horizon which surrounds their own domicils, or whose indolent thoughts have not been permitted to wander beyond the circle of their every day employment, or every day enjoyment, regard this scheme as one which could only have found birth in the feverish brain of some moon struck visionary.—What, say they, “a Rail Road through the E. S. Peninsula! and to be a part too of the great national works to afford rapid travel between the North and South? preposterous! monstrous!”

In the outset I profess a want of sufficient time to do justice to this important subject in hasty essays, and above all, want of time will preclude me from obtaining authentic proofs of some facts, which nevertheless, certainly exist, and which are essential to render the case I am supporting, perfectly clear and obvious to the most incredulous; but if such of our countrymen as are now sceptical on this subject will have patience to come along with me, I will promise at least to make him doubt in his disbelief of this scheme, if I do not convince him unconditionally of its practicability at a cheap rate, advantages to the whole Shore, and profit to the stockholders. It will not be my purpose to attempt to show that there is at this time travel and commerce enough on this shore to justify from its resources the making a rail road, although I will say, that the existence of a rail road for a term of fifty years would create in that time the necessary travel and commerce; but I propose to shew that there is foreign travel from the South to the North, now in readiness to support this road by its means alone, and independent of the funds to be derived from the liberal and enlightened plan of the General Government which proposes to make the rail roads the exclusive carriers of the mails. While the Government will save money and have the mail carried with more certainty and despatch by their plan on rail roads, it will be seen that the amount received by the roads for this purpose will be nearly entirely clear gain to them.

On casting the eye over the map of our peninsula, it will be seen that we not only have the most favoured spot, that perhaps nature in her bounty ever created on the face of this globe, for the projection of a rail road; but besides this we

have a beautiful spot of earth, bearing other characteristics. It has come from the hands of its creator, with almost the same smooth finish which it could have possessed, had it been under the graduation of a corps of engineers, employed from the days of Father Noah to the present time. Our soil is emphatically fertile, and not an inch of it but may, by the use of lime, be made first rate land, equal in its general productiveness to any land in the country. Our whole shore has been overspread and shaded by rich and heavy forests, large portions of which particularly in the interior still remain to attest its native origin and fertility; we are nearly surrounded by two of the noblest bays in the world, and we are cut up and intersected by navigable rivers and creeks, to an extent unlike all other spots on the face of the Globe; affording navigation for transportation from almost every neighborhood; these natural highways, many of them do not go far into the interior, and whilst they give us transportation from place to place, give us a number of luxuries for our diet, which go to supersede one-half of the labor necessary for sustenance, and exceeds perhaps in its variety, abundance, and excellence, the supply afforded by any other place on earth. It is to those extraordinary and wonderful advantages more than to any thing else, that may be ascribed, extraordinary as it may seem, the inertness, the indolence and supineness, which has caused our population to retrograde in numbers as our lands have retrograded in quality—no axiom is more true than that which alleges that men work and improve their soil, just in the ratio of the difficulty of obtaining subsistence from it. When we gain subsistence with very little labour we soon become impatient of any labour—when men are compelled to work hard every day to gain their daily subsistence, labour becomes habitual, and habit makes it pleasant.

Our shore from these very causes, strange as at first view they may seem, has fallen into neglect, and many of our most enterprising citizens are annually leaving us. The spirit of public Internal Improvements, so rife in the country, has occupied the thoughts of all our people or emigration, believing that we were without those natural and incidental advantages, which could lead to similar improvements on this Shore, and that we must therefore, remain forever stationary.

A brighter day is undoubtedly dawning on this Eastern Shore, and one that is to bind her citizens to her from one extreme of her bounds to the other, a day that is to bring, and speedily, a great increase to her population, and to make the Eastern Shore that which nature intended it should be, the garden spot of the country.

Whilst there is a vigorous effort now progressing along the line of our exterior water courses to improve the soil, the interior of the Shore is every day becoming thinner of its inhabitants, and every day brings an increasing number of old fields turned out to run into wilderness or waste land. How long I would ask, would it require for the improvements now going on upon the navigable water courses, chiefly by means of calcareous manures, to reach the interior of the Shore without the aid of a rail road through it, with laterals to every convenient navigable point on both the waters of the Delaware and the Chesapeake? Ages might be required, whilst by

the operation of the rail road, fifty years would not be required to place it completely on a footing throughout, with the most favored and most improving portion of the United States.

It will be borne in mind that the rivers, and creeks of our shore take their rise near the centre of the peninsula, fall to the east into the Delaware, and into the Chesapeake in the West. If you draw a line through the centre, it will be found to pass throughout our table lands, and cross cuts through more than two or three of those waters as low as navigable points. Our shore may be likened to a comb laid directly North and South with a bar in the middle of the table land, resembling the teeth of the comb. By a straight line rail road, on this table land, as may be seen by the map, the distance will be only a fraction over one hundred miles, and on this rail road by a locomotive you may run a passenger from one extremity of our part of the shore to the other in three hours and a half! Then the lateral roads would throw all the meats raised on the interior of the Shore to the navigable depots for their natural market, the city of Baltimore; whilst on the other hand the wood, the fruits, the vegetables to be passed on this road, would go to the depots on the Delaware to seek their natural market in Philadelphia and New York. As return cargoes, lime, plaster and merchandize would come from both sides for distribution down the main stem of the road.

Let me ask you to allow this essay to serve as the rough outline of the plan of the Eastern Shore rail road, and in my next I will enter into some calculations which although rough and hasty, will I am sure nearly approximate to truth to say this road can and will be supported alone by the foreign travel on it; independent both of the mail appropriation which it must and will have, and of the trade furnished by the country through which it passes. I will take leave to say, that, in the consideration of this subject, so vitally important do I consider to the Eastern Shore, it is to be devoutly hoped, that the narrow minded and jealous bickerings of party politics, will be wholly excluded and discarded.

I therefore hope this article will forthwith find a place in every newspaper on this Shore, as all other articles should do on the same subject, whether they be for the road or against it. Let all light be shed upon the subject. No time is to be lost, as this subject should be considered by the people, and understood by them, as well as their representatives, in time for the necessary action at the May session.

THOS. EMORY.

FARMERS' WORK.

The way to preserve your Indian corn against the wire worm and against birds, is to dissolve about a pound and a half of copperas in warm water, enough to steep about three pecks of corn, or in other words, make the solution as strong as it can be made, put in as much copperas as the water will dissolve, and soak your corn therein 48 hours before you plant it. The corn will thus be secured against the *wire worm*, which destroys the kernel, while in the ground, but not against the *cut worm*, which eats off the young shoots, just below the surface of the soil. The remedy against the cut worm is the application of quick-

lime, or unleached ashes, or a mixture of both on the hill, soon after planting. Potash, dissolved in water in the proportion of about one pound of potash to two quarts of water, is said to make an excellent wash for fruit trees, destroying the bark louse, and some say the borer.

Cleanse your Cellars.—If you consider good health an object worthy your attention, you will be careful not to breathe the gases which emanate from putrefaction, either those which are caused by the decomposition of vegetable or of animal substances. Rotting or rotten potatoes, cabbages, turnips, and other vegetables, as well as beef brine, pork brine, and tainted meats of any sort, are often unsuspected causes of bilious or typhus fevers, and should, therefore, be removed in season to the compost bed, and covered with earth, or otherwise disposed of, so that they may not annoy the senses, nor poison the air, in and about a farmer's premises. We have been assured by physicians of eminence, that they have reason for believing that bilious or typhus fevers, of a malignant or fatal kind, have often originated from sources of this description.

Sea Sand as manure for Potatoes, &c.—A letter from Wm. Moody to the Hon. Josiah Quincy, published in the 4th volume of the Mass. Agr. Repository, p. 353, recommends sea sand as an antidote against the wire worm, and has no doubt it would prove efficacious against other insects which infest potatoes while growing. This writer says—"I am persuaded from experience, that sea sand, put under corn or potatoes with manure, or spread on the land, will go far, if not wholly, to the total destruction of those destructive worms on which nothing else seems to have any effect. It has a beneficial effect, spread on land before ploughing, or even after land is planted with corn or potatoes; not only to destroy the wire worm and other insects, but to increase the crop. With my neighbors a load of sea sand is considered preferable to a load of their best manure, to mix in with common barn manure, or to spread on their gardens and low flat land."

Mr. Moody likewise says in the same letter—"late planted potatoes, which are gathered in before ripe, are far best for seed the next year. If kept in a dry warm place in a cellar, they will be much earlier, and likely to produce more abundantly the next year, and will be as good for use the following spring, though they may not be so good in the fall."

Mr. Moody's opinion relative to planting late or unripe potatoes, is corroborated by an article originally published in Loudon's Gardener's Magazine, and republished in the N. E. Farmer, vol. v., p. 409, in which it is stated, that "the ripe potato, having performed all its operations, becomes more inert; but the circulation of the sap in the unripe tuber having been stopped, it starts more readily, and with greater vigor when planted; the one seems to die, worn out with age, the other seems accidentally to have fallen asleep, and when awake possesses an unspent vigor and energy."—*N. E. Farmer.*

To preserve Milk.—In very warm weather, says the Genesee Farmer, when milk sours soon, put two table spoonsful of salt into every pail of milk before straining; it will greatly improve the quality and quantity of butter.

Notices of new and beautiful plants figured in the London Floricultural and Botanical Magazines, with some account of those which it would be desirable to introduce into our gardens.

DICOTYLEDONOUS, POLYPETALOUS, PLANTS.
Ternstroïaceæ.

CAMELLIA.

Since our last, several new varieties have been in flower, in the vicinity. Among others, *rosæ-flora* and *Weimaria*, in Mr. Sweetser's collection. The latter is a single white flower, of great beauty; the stamens are very numerous, and spread out much in the style of those of a *cereus*. The plant was very small, and the flower consequently weak. *C. reticulata* has been in full bloom both at Mr. Wilder's and in our collection. Park's rose stripe has also been in flower; its fragrance is very perceptible; and on this account alone, aside from its beauty, which is considerably attractive, it should be in every collection. We have now in bloom *concinna*; it is somewhat like *eximia* of the English collections. *C. j. corallina*, of some French catalogues, seems to be synonymous with *florida* of the English.

Hypericaceæ.

OCHRA/NTHE Lindl.

arguta Lindl. A green-house plant; with white flowers; a native of China. Bot. Reg. t. 1819.

A shrub, introduced from China to the Horticultural Society's garden at Chiswick, where it flowered as long ago as 1826. The plant died a short time afterwards, and has never been seen since. A drawing was taken at the time, and has been kept ever since, with the hope, that it might be again discovered, and accurately described by the fruit. Dr. Lindley states that he was unable even to obtain "an approximation to its true station in the system." It is a pretty plant, from the representation of the plate, but as it is lost to England, and may be a long time before it is again introduced, a particular description will not be of much interest. (Bot. Reg., Dec.)

Rosaceæ.

RUBUS

nutkanus De Cand. Nutka Bramble. A hardy shrub; flowers white; appearing in the summer; propagated like the other species; a native of North-west America. Bot. Mag., t. 3453.

"A large flowered, handsome" species, "nearly allied to the *R. odoratus*, or flowering raspberry." The leaves are large, cordate, five-lobed, doubly serrate, and copiously reticulated with veins.—The flowers large and white, with numerous stamens and yellow anthers. It was discovered by A. Menzies, Esq., during the voyage of Captain Vancouver, at Queen Charlotte's sound, in lat. 61° on the North-west Coast; since by Mr. Douglas, extending from 43° in North California, to 52° at Nootka Sound. He also found it extending to the interior to the head of the Columbia river. By Mr. Drummond it was detected on the eastern declivity of the Rocky mountains, in lat. 52°. (Bot. Mag., Dec.)

Oxalidaceæ.

O'XALIS

Piottæ. Col. Piotta's Oxalis. A half-hardy perennial, with reddish yellow flowers; appearing in July and August; propagated by offsets, in rich, sandy loam; a native of the Cape of Good Hope. Bot. Reg., 1817.

"A truly beautiful little half-hardy, or frame perennial, flowering most copiously during the months of July and August." It does not produce much of an appearance in the border; but

"a large pot filled with its dense green leaves, and covered with the large, salmon-coloured flowers, is a lovely object." In this respect it is somewhat similar to *O. Dèppeii*, which flowered with us last season. It is supposed a native of the Cape of Good Hope, and was received from Professor Savi, of Pisa, as also from other botanic gardens in Italy. The drawing was made from plants, which flowered in the collection of Mrs. Marryatt, who is the only possessor of it in England. (Bot. Reg., Dec.)

Polygonaceæ.

COCCO'LOBA Lindl. (from *kokkos* fruit, and *lobos*, a lobe; in allusion to the lobed seeds.)
virens Lindl. Green sea-side Grape. A hot-house plant; with white flowers; appearing in August; supposed a native of the West Indies. Bot. Reg. t. 1816.

"Communicated from Wormleybury, by Sir Abraham Hume, with whom it flowered in August, 1833," under the name of *excoriata*, which is very different. The flowers appear in drooping racemes; and are not very showy. Native country supposed the West Indies. (Bot. Reg., Dec.)

DICOTYLEDONOUS, MONOPETALOUS, PLANTS.

Ericaceæ.

RHODODENDRON

var. pulcherrimum Lindl. "The lovely" Rhododendron. Between *R. arboreum* and *R. caucasicum*. A hardy evergreen shrub, with flowers of a light rose color; a hybrid variety. Bot. Reg. t. 1820.

A very beautiful variety, produced by Mr. Waterer, of Knaphill, between *R. arboreum* and *caucasicum*. It is "an abundant flowerer." (Bot. Reg., Dec.)

var. Nobledum Hort. Noble's Rhododendron.

A hardy evergreen shrub, with flowers of a deep and brilliant rose color; a hybrid variety. Bot. Reg. t. 1820.

Very much like *pulcherrimum*, in all respects, "except that its flowers are of a deep and brilliant rose color." Both are stated to be "among the handsomest hardy shrubs in cultivation." (Bot. Reg., Dec.)

maximum var. *hybridum* Hook. *R. frâgrans* Hort. Laurel leaved Rhododendron.

Supposed between *R. glauca* (*Azâlea glauca*) and *R. maximum*. A hardy shrub, with white flowers tinged with pink; a hybrid variety. Bot. Mag., t. 3454.

"A charming plant," cultivated in the Glasgow botanic garden, under the name of *R. frâgran*. Dr. Hooker states that it has every appearance of a hybrid, and refers it to a figure in the Bot. Reg. t. 195, as a synonym. The flowers are delicate, in large umbels; anthers yellow. "Whatever may be its origin, it is amply worthy a place in every flower-garden and shrubbery." (Bot. Mag. Dec.)

[From the Southern Agriculturist.]

On the Diseases of Trees and method of Cure.

When it is observed of a tree, that it does not shoot forth, we are certain that it is either punctured to the liber or white bark, or that it is deficient in nourishment from the poverty of the earth, in which it is planted, that will in time prove its destruction. The remedy is to lay bare the roots in the month of November, for three feet around the tree, and put in three or four baskets of well rotted cow manure; throw upon this three or four buckets of water to force the manure amongst the roots, after which fill up the hole with the same earth that was taken out of

it; the roots becoming refreshed throw out new fibres, and the year after the tree will be seen shooting forth its green foliage again. If the summer is very dry you must throw two buckets of water around it from time to time. The winter following in trimming the trees, you must not leave as many branches as on those that have always been in good health. Trees of every description are cured in this manner.

Bad Soil.—Fruit trees accommodate themselves more to warm light earth than to that which is cold and wet.

Diseased Roots.—Frequently a tree, all of a sudden, after having thriven many years, will become weak and languid; this arises from the roots becoming rotten from having been planted too deep, from the many fibres, from humidity or otherwise. This is easily remedied by laying bare the roots in autumn, and cutting off such as are decayed, up to the sound wood.

Exhausted Earth.—If the tree languishes in its sound roots, the malady arises from the earth being too much exhausted. To reanimate it, remove the exhausted earth and replace it with new; afterwards throw around the foot of the tree two good baskets of cow manure, if the earth is warm, or that of the horse if it is cold, and when the time arrives to trim it, cut out the old wood. If it does not shoot forth well the succeeding year, it ought then to be dug up and thrown away.

To regenerate old Trees.—When you have in your garden a very old tree, whose branches on the right and left indicate dying, you may calculate the cause to be in the roots, it wants nourishment, and the earth about its feet is too old, exhausted, and dry. To give it again health and vigor, lay bare the roots in the month of November, for four feet square all around them, so as not to injure them; afterwards throw five or six baskets of well rotted cow manure above the roots, the fall and winter rains will decompose it; if the winter is dry, you must water it, in order that the liquor of the manure may become a kind of pus to nourish the roots; the sap will begin to flow, and the earth and tree revive. In the month of February cut the old branches to the body of the tree, covering the wound so as to prevent either rain or the sun from doing any injury. After the first year the branches will be three feet; and, if it is a tree which ought to be trimmed, the winter after trim the branches a foot long. This manner of resuscitating all kinds of trees is excellent.

Trees diseased on one side only.—If a tree is diseased on one side and vigorous on the other, lay the roots entirely bare, remove the diseased part, and cut the larger roots in order to make the tree equal, and the circulation of the sap more general; put new earth above the roots, even if they should not be unhealthy, and two or three baskets of manure as above.

When you trim this tree leave the vigorous side long, and you must leave all the fruit branches, even the weakest, so as to draw the sap; trim very close the diseased side; cut off all useless branches, and leave a few fruit branches.

Yellow Leaves.—This disease arises often from the same cause as that of the disease last spoken of, that is to say, exhausted earth. In such case administer new earth mixed with ma-

nure reduced nearly to that of common earth; or, without entirely uncovering the roots, with ashes and soot, these materials are very good for light earths. When the ground is cold pigeon dung is very good, particularly where it has been in a heap for two years to ameliorate its strong heat; spread it an inch deep about the foot of the tree, and in the month of March following bury it. For the want of this dung, you must take away the old earth from around the tree and replace it with new, mixed with fine well rotted horse manure. If the yellowness arises from the earth being damp, take horse-dung mixed with water, so as to form a kind of pap, make a trench around the foot of the tree, pour in the mixture, cover it, and let it thus remain, it will reanimate it. If the yellow leaves arise from a contrary cause, that is from the soil being too light and dry, you must as soon as the month of November arrives, uncover the roots, and put about them the scrapings or settlings of a pool well drained, worn out, and exhausted street mud, hog-dung, or other similar manure; these simple and easy means will resuscitate them.

A tree often becomes yellow from having given too much fruit, and exhausting its substance. In this case you must pull off a part of the fruit and apply fresh nourishment to the roots.

When a tree appears to languish, make a circle around the foot of it, in which you must put any convenient manure; in trimming it, cut off all superfluous wood, and after you have filled up the hole in which you have put the manure, leave nature to act, and she will resuscitate it soon. In digging around the tree, keep off at from two to four feet distance, observing as you approach the tree to dig carefully around the mound in which the roots are formed.

Sterility.—Open the earth about the foot of the tree, cut off the extremities of the large roots, shorten those that are too long or far off, and all the small ones near the trunk; throw good new earth upon them and cover them up.

Means to produce fruit from trees which flourish well, but whose fruit becomes blighted almost every year.—There are some trees which are charming to the eye when in blossom, but which retain none of their fruit; in this case, at least six buckets of water thrown around them when in full bloom, will answer a good purpose. If you have not so much water, you may refresh the tree by sprinkling the buds. When the fall of the blossoms is in too great an abundance, bleed the tree or prune the roots.

Inertness of the Sap.—In very cold and dry summers, in which there is not much rain, it happens that the sap ceases to flow by degrees. You will then see a great portion of the fruit, particularly peaches, which have the most need of a large stock of sap to acquire maturity, fall or prove abortive. The only remedy in this case is to open around the foot of the tree, and to throw in a bucket of water to open the pores and revive the sap, which will prove well that watering and vigilance are necessary in gardening.

When the spring is dry and cold, it happens often that a peach tree does not shed its blossoms, the flower attaching itself to the small nut of the peach, dries it up and makes it fall; to remedy this, you must bare the roots and throw in

buckets of water, and when it is dried up, cover them again with earth, and continue watering them every week during the month of March and April, until you find the fruit safe and well grown, this raises the sap and saves the fruit; it is good to water freely peach and apricot trees during the great heat of summer, and above all when the fruit is approaching to maturity. When the fruit is well grown, the tree must be thinned of those that are superabundant, which not only makes the fruit grow larger but better, it also preserves the vigor of the tree, which would become ruined in two or three years, if you do not proportion the fruit to the strength of the tree. Peaches, nectarines, and apricots, must be thinned in May. Only a few fruit must be suffered to remain on the weak branches.

When the heat is great and a continual drought, at the end of July, and during the month of August, it is good to throw around the foot of the tree, and particularly the peach, a bucket or a half bucket of water so as to arouse the sap and prevent the fruit from falling half ripe. When you observe the tree languish and the fruit advance very slowly and fall in great numbers, you may be sure it is in the sap, you must then put water to the foot of the tree, for which purpose you must make a trench around it at a short distance, so that the water may be better held, cover the earth with leaves or straw, and throw water on it, so as to enable the earth to preserve its freshness.

To give fruit a fine color, about the end of June clip with a scissors those leaves that surround the fruit, and when they have grown nearly to their size, remove all their leaves from around them, so that the dew, rain, and sun may penetrate, paying attention to the soil, the weather, and the strength of the fruit, for delicate fruit becomes scorched if laid bare too soon, and if too late will remain without colour and taste. Peaches and apricots should be laid bare only fifteen days previous to their being ripe, otherwise the fruit would become defective and imperfect about the stone. By jetting water with a syringe, upon those fruit exposed to the sun two or three times a day, you will give them a peculiar and curious color, but at the same time impair the quality.

When the severity of the heat occasions the fruit to fall, instead of watering, dig around the roots two inches deep, which fill with the ashes of wood, and to prevent the wind from blowing it away, cover these ashes with earth.

Peach and apricot trees are liable to what is termed the blight, which is an injury that shews itself by the leaves becoming crimped, shrivelled, dull, and yellow; they fall about the first rain; you have nothing to do but first to remove all the blighted leaves, so that the new foliage of the succeeding spring by force of the sap of those which have been blighted, come quicker.

To remove gum you must with a proper instrument cut down to the inner part of the tree, and cover the wound with dry earth, tied on with a cloth.

This is the general method of treating diseased trees in France, which from similarity of climate with that of this country, will apply here. Many persons believe it to be only necessary to plant a tree, and that nature will do all the rest. It is

true, we must depend upon nature for the success of our endeavors; but we must recollect that the fruit trees we cultivate, are not indigenous to this climate, and that our want of skill and judgment in planting and nourishing them, may embarrass the operations of nature in bringing the fruit to perfection. It becomes necessary, therefore, to ensure success, that we should aid nature in her operations, by removing all obstructions to her efforts, and furnishing the proper attention and nourishment for the prosperity of the tree. In order to effect this, observations and experiments are necessary; and ordinary care and attention to the method prescribed above, will be sufficient to accomplish our purpose.

How much then, is to be deprecated that want of zeal, which is so clearly manifested in this section of the country in relation to the cultivation and care of fruit trees. Providence has peculiarly blessed us with the means of indulging in most of the luxuries enjoyed by other sections of the globe, but our apathy appears to have created a total disregard to her munificent blessings in this respect. There is no spot on earth where most of the stone fruit of other climes, could be cultivated in more perfection than in this State. The diversity of soil produces diversity of fruit, and although, on Charleston Neck, peaches and nectarines are destroyed by various insects, yet, all kinds of plums and cherries may be raised in great perfection; some of the latter raised there by Mr. Michel, are equal in every respect to any ever produced in a more Northern climate. Cultivators instead of importing and increasing the fine plums of France, appear to be satisfied with the miserable trash that grows unheeded and uncared for in thickets. This negligence is reprehensible and ought to be corrected.

A FRENCHMAN.

REMARKS ON THE CULTURE OF HARDY DECIDUOUS & EVERGREEN PLANTS.

[From Paxton's Magazine of Botany.]

The culture of hardy shrubs is in general simple and easy, the chief things to be noticed are—the proper season of planting—the situation in which the plants will thrive—the kind of soil best suited to their growth—and the encouragement given to enable them to thrive afterwards.

The proper season for planting.—As soon as the leaves begin to fall in October, deciduous trees may be planted with safety; and although this planting continues until the trees begin to swell their buds again in the spring, yet those plants have invariably succeeded best with us which were shifted in October, November, February, and March, and those the worst that were planted in December, January, and April.

Evergreens, in general, if taken up carefully, may be planted with success any season of the year, provided dull or dripping weather be taken advantage of for that purpose. There are particular seasons, however, when they will thrive with much greater freedom than at others. If the situation be dry, and the soil light and sandy, they should be planted (with the exception of hollies) in November and December, if the weather be mild; on the other hand, if the situation be low and the soil retentive of moisture, they should be planted in May. In both cases it is indispensable that all large trees and shrubs

be removed with good balls, and that the roots be uninjured. Hollies should be removed from the end of May to the end of June.

In planting evergreens I perfectly agree with Mr. McNab, that whether it be done in a dull day, a wet day, or a dry day, it is very necessary to keep in view the expediency of keeping the plants for as short a time out of the ground as possible—if only a few minutes, so much the better; and in all cases, when it can be done, when great numbers are to be planted, we should if possible have some men stationed to take up the plants, others to carry them, and a third set to put them in the ground.

"In all seasons, situations and soils, the plants should be well soaked with water as soon as the earth is put about the roots. Where the water is not at hand, so that it may not be easily carried, or wheeled by men, a horse with a water-barrel on wheels should be used. As soon as the plant has been put into its place, the hole should be filled in, leaving a sufficient hollow round the stem, and as far as the roots extend, to hold water, which should then be poured on in sufficient quantity to soak the ground down to the lowest part of the roots; in short, the whole should be made like a kind of puddle."

"By this practice, which is particularly necessary in spring and autumn planting, the earth is carried down by the water, and every crevice among the roots is filled. Care must always be taken to have as much earth above the roots of the plants as will prevent them from being exposed when the water has subsided. The best plan is to take an old birch broom, or any thing similar, and laying it down near the root, pour the water upon it; this breaks the fall of the water, and prevents the roots from being washed bare of such earth as may adhere to them: in this way time is saved, for the water may be poured out in a full stream from the pail, a watering-pot, or even from a spout or pipe in the water-cart or barrel, when the situation is such that this can be brought up to the plant."

"After the first watering has dried up, the earth should be levelled round the stem of the plant, and, as far out as the water has been put on, but not trod; if the plants are large a second watering is sometimes necessary, but in ordinary sized plants, one watering is quite sufficient; and after remaining twenty-four hours, more or less, according to the nature of the soil, the earth should be trod as firm as possible, and, after treading should be dressed with a rake."

2. "*The situations in which the plants will thrive.*—With regard to the situation in which each shrub should be planted, little can be said here; to form a correct judgment of this, a knowledge of the natural habits of each is required; this knowledge may be easily obtained by referring to a botanical catalogue, and other works treating on the subject. Some shrubs love a dry and elevated situation, and will not thrive crowded with others,—some are rather tender, and must have warm and sheltered places,—others are very hardy, and will thrive planted anywhere,—others again will not grow freely unless they are placed in low damp ground,—and others do not flourish if much exposed to the rays of the sun.

3. "*The kind of soil best suited for them.*—With respect to soil, hardy shrubs may be divided into two kinds, viz. first, shrubs requiring common soil; and second, those shrubs constituting the American garden. A rich, light hazel loam, undoubtedly suits the greater part of the first class of plants, although many of the stronger growing kinds will make fine bushes on almost any kind of soil. The American plants, as *Kalmias*, *Rhododendrons*, *Andromedas*, &c. &c., make the finest plants and the best show, if they are planted in a soil composed for the most part of sandy peat; but in the absence of this, a very good compost may be made for them of light hazelly loam, river sand, and vegetable or leaf mould, equal parts, or a little peat earth mixed with it. After having taken out the original soil from the proposed border to about a foot and a half deep, substitute the above mixture in its place.

4. "*To encourage the growth of the Shrubs after being planted.*—Whilst the plants are small, constantly keep down all rank growing weeds, and clear off all rubbish that would otherwise retard their growth; also they receive much benefit by the surface of the ground being often stirred with a Dutch hoe, as it prevents the surface baking hard in dry weather.

Watering shrubs, except in peculiar situations, during dry summers, appears to be of very little, if any benefit; on the other hand, it takes up much time, and is the means of the ground baking hard when dried by the sun again. When they have advanced to a large size all the care required is to cut off the overhanging branches, so as not to allow them to smother each other, or the stems of those over-hung will become naked and unsightly.

[From the Maine Farmer.]

IMPORTANCE OF GOOD BREEDS OF CATTLE.

We wish once more to remind our readers upon the importance of keeping a good breed of cattle, even if they keep but a few of them, rather than a great herd of poor ones.

The severity of the last winter teaches us a good lesson upon this subject. A few good first rate cattle would not have required so much fodder and have been worth much more, of themselves. A large and handsome cow may perhaps eat somewhat more than a smaller one, but the labor of taking care of her is no more—and the worth of her in the market is oftentimes twice as much as that of the small and mean one. This is beginning to be felt and practiced upon in the Western country where forage is undoubtedly more abundant than it is here; and where they are in the habit of keeping immense herds of cattle. They are now turning their attention to better breeds, thinking no doubt, that it is better to have a smaller number of cattle of great value, than to keep more in number of less individual value. In Ohio during the past year, companies have been formed, and Agents sent to England to select out and purchase the very best that could be found, and import them to this country. Cows and Bulls of the Improved breeds sell there for large prices—while here such is the apathy that a person who ever goes to an extra expense in and of himself to procure the best, meets with much

ridicule and but little encouragement. We are happy to say that a few spirited individuals have obtained the first rate Bulls for the purpose of improving their own breeds, and for the purpose of benefitting those who feel anxious to improve, and yet the same men will tell you that, setting aside the benefit which has been done in their own herds, they have been poorly requited by any patronage or encouragement from others.—And what is the reason? Because most of our farmers do not calculate right. They value cattle by their numbers rather than by their good properties.

Their minds are cramped down to the minimum value of ordinary stock, and it is hard to raise it to a higher standard. They can't for the life of them, see why a cow or bull should be worth fifty or an hundred dollars, and that one should ever sell for three hundred, is the most absurd extravagance that they ever heard of. These limited ideas should be enlarged. We do not wish to encourage extravagance. We do not wish our farmers to rear fancy stock. We do not wish that they should go beyond their incomes or means and purchase at enormous prices cattle which have nothing uncommon or excellent to recommend them. But we do wish, most earnestly wish, that they would rouse up a little in this respect. Keep not so many, but those that are better. Condense the value of your herds into a smaller number of bodies; and then the relative profit will be enhanced. It is plain enough to be seen that the man who rears a yoke of oxen which will sell for from \$100 to 150 at four or five years old, reaps more than he who rears a yoke that he can get but fifty or sixty for, at the same age. If you are not able to improve your stock solely yourself, get others to associate with you. Club together by neighborhoods and help each other. And if any of your neighbors who, perhaps, cannot well afford, should take a first rate animal for the season, relying upon your encouragement and support—give him your encouragement and support. Don't "as the manner of some is," cry him down, and "run" him down, and throw every obstacle in the way. You thereby do much mischief and no good. Don't practice the play of the dog in the manger, but put your shoulder to the work, promote every laudable undertaking of the kind, cheerfully and promptly. We make these remarks because we know of more than one instance of the kind; and because also we deem it a fit opportunity to call attention to this subject now, while the memory of the scarcity of the hay mow is fresh in your minds. Let this precept be adopted by every farmer—better have fifty dollars worth in one cow, than in five, at ten each; and an hundred dollars worth of oxen in one yoke, than in two, at fifty each, and remember that this is just as easily done as it is to follow in the old system.

Good Cattle—The New Castle (Dela.) Gazette, gives the following account of the late sale of Mr. John Barney's stock—"A Bakewell Buck, brought \$150; another buck \$100; two Bakewell Ewes, 50 each; several with lambs at \$35 each, and ewes without lambs 25 dollars each; two heifers of Simm's celebrated milk breed \$75 each; two short horned Durham breed, \$100 each; and the celebrated 26 quart cow, (Simm's breed) \$100.

STAGGERS IN HORSES AND SHEEP.

This disorder has been rather common in Parsonfield and some of the neighboring towns. A number of animals have died with it. Much has been written and said concerning the cause and cure of this disorder. It prevails at different seasons of the year, affects animals that work as well as those that are idle, and such as are in the stable as well as those that run in the pasture. It is evident that there are many causes of the disease. In winter it is doubtless mostly occasioned by animals being confined to dry fodder, which produces costiveness. A fever is excited and there is an influx of blood to the brain. As the disorder results from a disordered state of the stomach, feeding on roots would doubtless be a good prevention. Potatoes with salt would be very good, as they are a gentle purgative.

Symptoms. The symptoms of the staggers are drowsiness, inflamed eyes, half shut and full of tears, the appetite bad, the disposition to sleep gradually increased, subtleness, a continual hanging of the head, or resting it on the manger, rearing, falling, and lying in a state of insensibility, walking in a circle for a considerable length of time, the ears hot with a burning fever, &c.

Remedy. Bleeding and the most active purgatives are recommended. A skilful physician informs us that he has frequently known the following dose to give relief to horses. It is warm stimulating, and a powerful physic.

Four ounces *aloes*, one ounce gum myrrh, pounded fine, sifted through a coarse sieve, and given in warm sweetened water, or in half a pint of gin with warm water. Some writer recommends giving one ounce of *aloes* dissolved in hot water and then one-fourth of an ounce every four hours until purging be produced. Other purgatives may given if *aloes* be not at hand. *Yankee Farmer.*

MANAGEMENT OF BEES.

Early in the spring, from deficiency in the stock of winter honey, the bees of one hive are often found to rob those of another. To prevent this, I know of no better way than to make the entry hole of the hive that contains the most honey so small that it will barely admit them to go in and out.—But the greatest object which could claim the attention of every one who has the charge of bees, is to prevent their destruction by worms. Perhaps two-thirds of the bees on the Island have within a few years been destroyed by the insect called the miller. It enters the hive and lays eggs, which soon produce worms in such numbers as to destroy the bees or drive them from the hives. To prevent the access of worms, the hives should be perfectly tight, and have but one hole at the lower edge of the hive; the continual passing of the bees will prevent them. But the most sure way of keeping them out is to have a well made hive, to act very level on a board, which shall project out in front of the hive 7 inches, to have a channel or groove about 10 inches long, and 2 wide, and half an inch deep out in this board; and then have a board about 4 inches wide nailed over the groove outside of the hive. The bees will enter the hive by this groove—the entry hole being at such a

distance (four inches) from the hive, no kind of insect will ever enter. I have observed that bees which deposite their honey in trees very generally have worms among them, if the hole is large or if there are two or three small ones. But when the hole has been small I have always found the honey pure and free from worms. Besides this great advantage, the bees are less annoyed by the dust and leaves blowing in during dry weather and rain beating in during heavy storms. All kinds of dirt are very offensive to bees. The hives should be of new clean boards. To have them quite clean is much better than to rub them with sugar or salt and water.—I have known bees to forsake hives which once contained fish or some other oily substance. The empty hives, during winter, should be in some place where they can be kept from dirt, particularly from mice and rats. When bees swarm and light on the limbs of trees, they should not be shaken off violently, but the hive should be put near them, or the limbs sawed off.

The next object of attention is to take up the honey without destroying the bees.

The old method of killing the bees to get the honey, is a very bad one—it can be easily avoided about the first of July, or as soon as the bees begin to lie idle in the front of the hive, take a hive of the same dimensions as the one they are in, and bore in the top of it as many holes as you can, about an inch in diameter—raise [near the dusk of the evening,] the hive that contains the bees—put it over the one that has the holes. The bees will immediately descend into the lower one, and will fill it with honey. If the hive is fixed according to the above directions, they will go out and enter the same hole that they did when filling the first one; and thus they will not be disturbed in the least. But when the hole is made in the side of the hive itself, you are under the necessity of stopping it up and making them pass through one with which they have not been acquainted. In the fall after the bees have done collecting honey, take off the top hive and turn it bottom upwards, place the edge of it near the entry hole; and by thumping a little the bees will immediately leave it and enter the other. Take a piece of board of the proper size and screw it in over the holes.—By this method you get a hive full of fine honey, and a sufficiency in the other for the bees to live on during the winter. Unless the bees have a second hive to fill, they are in a good season almost entirely idle after July, for want of room to store their honey.

By this method of management, bees are rendered very profitable.—Two years ago I bought a swarm of bees on the limb of a tree for \$3 25. From this one I have 5 others, which independently of the honey they have produced, I value at 28 dollars—and should the three following seasons prove favorable, I shall from this one hive, have bees enough to support my family. From one hive of bees I can generally get two others every year. At a moderate calculation, I shall have in 3 years 60 hives, and should the season be favorable, I shall have one hundred. When my number of hives is sufficiently increased, each one will every season, produce honey to the amount of seven and a half dollars.—*Long Island Journal of Philosophy.*

NEW JERSEY MARL-BEDS, BETTER THAN GOLD MINES.

Professor Rogers, in his late report on the Geology of New Jersey, ascribes the usefulness of the marl or green mineral, as a manure to its *POTASH*, which is always present and essential to its composition. The efficacy of the article lies mainly in the green granules, and not, as many imagine, in the shells and other foreign substances discovered occasionally in the beds. He moreover says that the more essential and permanent properties of this mineral are in no way connected with the gypsum, or with the carbonate of lime, which so frequently forms a coating upon the green grains.

Between Long Branch and Deal, along our coast, the marl stratum has been penetrated thirty feet. The upper two feet consist of a green clay, seemingly derived from the disintegration of the green grains, intermixed with a large proportion of yellowish white clay. The main marl bed having a thickness of about 26 feet, contains several subordinate layers, but all contain a large share of the green granules. Beneath the whole is a grey yellowish clay, in which the grains abound, but they are remarkably large, and are associated with numerous casts of shells. A similar layer is seen in Jacob Carl's pits, where it contains beautiful casts of the *Nautilus* and several shells, and also shark's teeth.—*Newark Daily Adv.*

PASTURE LAND.

To manage pasture land advantageously it should be fenced in small lots of four, eight, or twelve acres, according to the largeness of one's farm and stock. And these lots should be bordered at least with a row of trees. It is best that trees of some kind or other should be growing scattering in every part of a pasture, so that the cattle may never have to go too far in a hot hour to obtain a comfortable shade. The grass springs earlier in lots that are thus sheltered, and they will bear the drought better. But too great a portion of shade should be avoided, as it will give a sourness to the grass.

Small lots thus sheltered are not left without snows so early in the spring as larger ones lying bare, as fences and trees cause more of it to remain on the ground. The cold weather in March and April hurts the grass much where the ground is bare, and the winds in winter will not suffer snow to lie deep on land that is too open to the influence of winds and storms.

It is hurtful to pastures to turn in cattle too early in the spring, and most injurious to those pastures in which the grass springs earliest, as in low and wet places. Poaching such land in the spring destroys the sward, so that it will produce less grass. Neither should cattle be let into any pasture till the grass is so much grown as to afford them a good bite, so that they may fill themselves without rambling over the whole lot. The 20th of May is early enough to turn cattle into almost any of our pastures. Out of some they should be kept later. The driest pasture should be used first, though in them the grass is shortest, that the poaching of the wettest may be avoided.—*New England Farmer.*

ROOT CROPS.

In order to carry on the business of breeding live stock successfully, more attention than is usual among farmers must be paid to crops, such as Turnips, especially the Ruta Baga, Carrots, and Mangel Wurtzel. In no way can so large an amount of food for cattle, horses, hogs or sheep, be drawn from an acre of land as in one of these crops, or one which in every way is so profitable to the raiser of stock. In estimating the value of green crops there is no necessity of taking the extraordinary yields which are sometimes obtained as a standard. A thousand bushels of the Ruta Baga, and 800 of carrots have been raised to the acre, but taking the amount at only one half—and under almost any ordinary circumstances that amount can be produced—and it may be seen at once that a crop of corn, oats, or potatoes, cannot be compared with the Ruta Baga or the carrot for profit. The man who wishes to make the most of his farm must raise root crops; for if wheat is his object he can spare more of his land for that purpose, and yet keep the necessary stock, and if raising stock is his business, he may depend on seeing his herds and flocks through the winter in much better order and with less expense, than if he relied on hay alone.

[From the Philadelphia Herald.]

THE GROWTH OF COTTON.

The immense importance of the Cotton Trade to the United States, and the great influence it exerts upon the wealth and prosperity of the country, are subjects of great interest to every American. When we reflect upon the fact, that before 1780 not a single pound of cotton was exported from the United States, and compared with its gradual increase from that period until the present day, we can not but be surprised at the immense extent and importance of that branch of Trade. In 1789, there was raised in the United States, one million of pounds. In 1799, 20 millions. In 1809, 82 millions. In 1819, 167 millions. In 1829, 365 millions, and in 1834, 460 millions; showing an astonishing increase of over 450 millions in a little more than forty years. The whole crop of the world now equals 900 millions of pounds per annum. It is estimated that two pounds per head are now consumed throughout the world, and that the consumption is greater than the crop; or the demand greater than the supply. From this fact we may infer, that the price of cotton will be gradually advancing, proving thereby that the production of cotton will continue to enrich our country, and ultimately bring the balance of trade in favor of the United States. The immense amount of capital employed in the raising of cotton in the United States, exceeds belief. It is estimated by the Secretary of the Treasury to be about 740 millions of dollars, exclusive of about 80 millions temporarily invested, or circulating. When we consider the constant increase of the consumption of the article, the growing demand for it occasioned by the commercial enterprise of the country, the general favor for the manufactured material: its warmth, durability and cheapness, compared with all other kinds of manufactured cloth, and the facilities of produ-

cing it in its finished state, by the every day improvements in machinery, we cannot but perceive its importance to the wealth and enterprise of the country. The United States never need be afraid of competition in the production of the raw material; the superiority of the article grown in this country, will always place American cotton above all other, and for this reason it will always find a ready sale in foreign markets. What then are the inferences to be drawn from these facts? That the prosperity of the country depends very much upon the production of cotton. That investments in cotton lands will always be safe, and will be sure to yield large profits. That the commerce of the country must go on increasing—and that it is the duty of the government to extend to it every facility in its power.

AMERICAN OIL WELL.

About ten years since, whilst boring for salt water near Burkesville, Ky., after penetrating through solid rock upwards of 200 feet, a fountain of pure oil was struck, which was thrown up in a continued stream more than 12 feet above the surface of the earth. Although in quantity somewhat abated, after the discharge of the first few minutes, during which it was supposed to emit 75 gallons in less than a minute, it still continued to flow for several days successively. The well being on the margin, and near the mouth of a small creek emptying into Cumberland river, the oil soon found its way thither, and for a long time covered its surface. Some gentlemen below, curious to ascertain whether the oil would take fire, applied a torch: quick as a flash, was exhibited the astonishing spectacle of the surface of the river in a blaze, which soon climbed the most elevated cliffs, and scorched the summit of the loftiest trees, to the no small discomfiture of some of the neighbors. It ignites freely, and produces a flame as brilliant as gas. Its qualities were unknown, but a quantity was barrelled, most of which soon leaked out. It is so penetrating as to be difficult to confine in a wooden vessel, and has so much gas as frequently to burst bottles when filled and tightly corked. The color is green, but upon exposure to the air assumes a greenish hue. It is extremely volatile, has a strong pungent, and indescribable smell, and tastes much like the heart of pitch pine.—For a short time after the discovery, a small quantity of the oil would flow whilst pumping the salt water, which led to the impression that it could always be drawn by pumping. But all subsequent attempts to obtain it, except by a spontaneous flow, have entirely failed. There have been two spontaneous flows within the last six years. The last commenced on the 4th day of July 1835, and continued about six weeks, during which time 20 bbls. of oil were obtained. The oil and the salt water with which it is invariably combined during these flows, are forced up into the pump, supposed by the gas, above 200 feet, and thence through the spout into a covered trough, where the water soon becomes disengaged and settles at the bottom, whilst the oil is readily skimmed from the surface. A rumbling noise resembling distant thunder, uniformly attends the flowing of the oil, whilst the gas which is there visible every day at

the top of the pump leads the passing stranger to inquire, whether the well is on fire.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	8 00	9 00
CORN, yellow,	bushel.	80	81
White,	"	—	75
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's,	"	7 50	8 00
Do. do. Superfine,	"	6 75	6 81
SuperHow. st. in good de'd	"	6 75	—
" " wagon price,	"	6 75	—
City Mills, extra,	"	—	7 00
Do.	"	6 62	—
Susquehanna,	"	6 62	—
Rye,	"	5 00	—
Kiln-dried Meal, in hhd.	hhd.	—	20 00
do. in bbls.	bbl.	—	4 50
GRASS SEEDS, red Clover,	bushel.	5 25	—
Timothy (herds of the north)	"	2 50	3 00
Orchard,	"	2 75	3 25
Tall meadow Oat,	"	2 25	2 75
Herds, or red top,	"	87	1 25
HAY, in bulk,	ton.	18 00	—
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	—	9 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	33	35
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	44	47
PEAS, red eye,	bushel.	—	—
Black eye,	"	—	1 12
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 00	4 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGE,	pound.	3	4
RYE,	bushel.	95	97
Susquehanna,	"	—	97
TOBACCO, crop, common,	100 lbs	4 75	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
" for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 75	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 09
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	1 38	1 40
Red,	"	1 30	1 38
WHISKEY, 1st pf. in bbls.	gallon.	36	37
" in hhd.	"	35 1/2	—
" wagon price,	"	34	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	2 25	—
To Wheeling,	"	3 00	—
WOOL, Prime & Saxon Fleeces, ...	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	23 24

A HERD OF DURHAM STOCK BY AUCTION.

THE entire herd of the late Dr. Hosack, at Hyde Park, New York, 7 1/2 miles above Poughkeepsie, will be sold on the 20th of May, by auction. ALSO 100 Bakewell Sheep.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	15	17
Shoulders,....do.....	"	12	—
Middlings,....do.....	"	13	14
Assorted, country,....do.....	"	13	13½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....do.....	"	20	22
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	20 00	45 00
Dry,.....do.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	—	1 87
CHOP RYE,.....do.....	"	—	1 87
EGGS,.....do.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,.....	barrel.	8 00	—
No. 2,.....do.....	"	6 75	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 2, 9 25;—No. 3.....	"	—	6 50
Cod, salted,.....do.....	cwt.	3 00	3 25
LARD,.....do.....	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	Farmers Bank of Virginia 2a½
Branch at Baltimore,....do	Bank of Virginia,.....do
Other Branches,....do	Branch at Fredericksburg do
	MARYLAND.
Banks in Baltimore,....par	Petersburg,.....do
Hagerstown,....do	Norfolk,.....do
Frederick,.....do	Winchester,.....do
Westminster,.....do	Lynchburg,.....do
Farmers' Bank of Mary'd, do	Danville,.....do
Do. payable at Easton,....do	Bank of the Valley,....do
Salisbury,....5 per ct. dis.	Branch at Romney,....½
Cumberland,.....do	Do. Charlestown,....do
Millington,.....do	Do. Leesburg,....do
	DISTRICT.
Washington, } Banks, ½	Wheeling Banks,....2½a
Georgetown, } Banks, ½	Ohio Banks, generally 3a4
Alexandria, } Banks, ½	New Jersey Banks gen. 1½a2
	PENNSYLVANIA.
Philadelphia,.....do	New York City,....½a
Chambersburg,.....do	New York State,....2½a3
Gettysburg,.....do	Massachusetts,....2a2½
Pittsburg,.....do	Connecticut,....2a2½
York,.....do	New Hampshire,....2a2½
Other Pennsylvania Bks. 1½a2	Maine,.....2a2½
Delaware [under \$5]....3a4	Rhode Island,....2a2½
Do. [over 5].....½a½	North Carolina,....2½a3
Michigan Banks,.....5a	South Carolina,....2½a3
Canadian do.....5a	Georgia,.....3a3½
	New Orleans,.....5

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours. Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50a75 cents, 1a\$2 each. A liberal discount will be made when 1 doz. or more are taken. ROBT. SINCLAIR, jr. may 10 Light, near Pratt street whf.

GAME CHICKENS.

FOR SALE, five dollars a pair, Game Fowls, warranted to be of genuine strain. Apply to the editor.

CONTENTS OF THIS NUMBER.

Advice in corn planting—prospects of a scarcity of grass and necessity for providing a substitute—spring cider—general Emory's address—farmers' work—notice of new and beautiful plants—diseases of trees and methods of cure—remarks on the culture of hardy and deciduous and evergreen plants—importance of good breeds of cattle—notice of Mr. Barney's sale—stagners in horses and sheep—management of bees—New Jersey marl beds—pasture land—root crops—growth and increase of cotton—American oil well—prices current, advertisements, &c.

FARMERS' REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25, 1830.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving Bottoms \$30, with extra pair of knives.	\$33
11 " Permanent Bottom 28, do do do	31
13 " Permanent Bottom 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " Revolving Bottom 50, do do do	56
20 " Large size fitted for horse-power, do do do	90

His variety of Ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality, and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass Seed of superior quality.

mh 22—eo2m JONATHAN S. EASTMAN.

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted, Wove wire for screens, fans, cellar windows, safes, &c.

Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment extra castings for ploughs of all kinds, Threshing machines, Horse powers, Mill work, window weights, &c can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffle oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

GAMA GRASS ROOTS.

5000 Gama Grass roots will be received, and for sale about the 20th of March. By obtaining roots of this valuable grass, farmers will gain the advantage of two years over seed plantation.

March 1 ROBT. SINCLAIR.

PUBLIC SALE OF IMPROVED DURHAM SHORT HORN CATTLE.

THE subscriber will offer for sale in Wilmington, Del. on Saturday, the 21st day of May, his STOCK of improved DURHAM SHORT HORNS, consisting of 6 BULLS from 1 to 2 years old, 8 COWS, and 5 HEIFERS. Sale to commence at 10 o'clock, A. M. may 10 SAMUEL CANBY.

LIST OF FLOWER SEEDS,

FOR SALE BY R. SINCLAIR, Jr., Light, near Pratt street, Baltimore.

A. signifies annual flowers.

TIME OF SOWING, LAST OF APRIL TO JUNE.

Ageratum, A.	Joacoba, P. W., & yellow, A
Amaranthus, A.	Job's Tears.
Auricula.	Jacob's Ladder.
Argemone, gr. flowering A.	Larkspur, mixed, dble. A.
Asters, mixed Dutch, A.	Lupins, 4 sorts, A.
" China, A.	Mignonette, A.
Anemone, mixed, B.	Marygold, African mixed,
Bottle, Blue.	Ditto, French.
Balloon Vine, A.	Monk's Hood.
Broom Scotch, A.	Monkey Flower, mixed.
Balsamine.	Oleander.
Cacalia, scarlet, A.	Onethera, 5 fine sorts.
Cockscomb, A.	Pea, everlasting, P.
Clarkia, A.	Ditto, sweet, 6 sorts, A.
Chrysanthemum, mixed.	Poppy, mixed, A.
Candytuft, A.	Pinks, 6 fine sorts.
Cypress Vine, A.	" Carnation.
Catterpillars, A.	Purple Toped Clary.
Collinsia, gr. flowering, A.	Persicaria, mixed, A.
Cobea, climbing.	Prince's Feather.
Columbine, Dble.	Primrose, purple.
Convolvulus.	Pentapetes, scarlet, A.
Cowslip.	Periwinkle, R. & white.
Canterbury Bells.	Polyanthus.
Coreopsis.	Rudbeckia, A.
Cardinal Flower, scarlet.	Snap Dragon, scarlet.
Cowslip.	Snails, A.
Devil in a Bush.	Sun Flower, A.
Euphorbia, variegated, A.	Sensitive, A.
Egg Plant, white.	Schizanthus, A.
Fox Glove, mixed.	Scarlet Synchysis.
Forget me not, A.	Shot, Indian.
Gourd, 3 fine sorts, A.	Sultan, P. & white, A.
Gilia, blue.	Scabius-sweet.
Gillyflower, stock.	Swallow-wort.
ditto German, mixed.	Thistle, Scotch, A.
Honesty, or Satin Flower.	Touch-me-not, A.
Hollyhock.	Traveller's Joy.
Hedge Hogs, A.	Trailing Nalano.
Heart's Ease, A.	Virgin's Bower.
Hybiscus, gr. flowering.	Wall-flower, bloody.
Honeysuckle, French, A.	Zinnia, A.
Ipomea, mixed, A.	

ALSO—20 fine new sorts of flowers.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 4.

BALTIMORE, MD. MAY 24, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MAY 24, 1836.

THE SEASON.

The weather thus far through the month of May has been drier than we ever recollect to have seen it. It is now the 23rd of the month, and we have had but two showers, neither of which were sufficient to penetrate the earth more than an inch or two; the consequence of which is, that those who were so unfortunate as not to have their grounds ploughed last fall, are unable to do so now, unless they be sands. This necessarily puts back all the operations of persons who are thus situated; for it would be an entire waste of time and means to plough tenacious soils under present circumstances, as it would be impossible to pulverize them so as to render them available for agricultural purposes.

The science of agriculture, like all others, is replete with debatable points. Though there are belonging to it certain well established principles, on which most all enlightened practical as well as scientific farmers agree, still there are others, and not a few in number, on which diversity of opinions exist. This is the natural result of that love of opinion which all of us more or less are addicted to. Frequently we meet with those who, with the pertinacity with which the Medes and Persians adhered to their laws, insist upon their own notions as the law-agricultural, and which probably have no better foundation for their validity than a solitary successful experiment, which possibly may have been referrible to any other cause than the assigned one. The more enlightened portion of husbandmen, however, maintain, with all proper regard to common sense, that all substances, plaster excepted, intended to act either as nutriment to vegetation, or as stimulants to nutritive substances, should be turned under, so as to save to the land those volatile which would otherwise be lost by evapora-

tion if left exposed to atmospheric influence. These continue to pass off whilever vegetable decomposition is going on in the form of gases. If then there be any thing in them calculated to sustain or promote the growth of plants, it necessarily follows that a just economy of the farmer's resources would teach him to husband them, and it must appear obvious that the only way to do so is to turn all coarse or unfermented manure under the soil, thus subjecting it there to the process of decomposition and securing to it the benefit resulting from its gaseous parts, which, by becoming incorporated in the superincumbent soil, are rendered available as food for plants and are taken up as such by them.

We regret to find by the last Farmers' Register, that the legislature of Virginia adjourned without coming to beneficial action upon the memorial addressed to them by the agricultural convention which was recently holden in that ancient commonwealth. The committee on agriculture after having had the subject under consideration for several weeks obtained leave to be discharged from the further consideration of the memorial. To us it has often appeared strange that legislative bodies without respect to localities, manifested so suicidal an indifference to the welfare of the first interest of the country—we mean the farming interest, and this we have always considered the more strange, as most of our legislative bodies are composed of majorities of agriculturists. That so enlightened a body as a Virginian legislature should have permitted a committee raised expressly to husband so important a branch of industry, to retire from the fulfilment of its duty, is certainly to be deeply deplored, because the example may prove contagious, and thus extending to other sister deliberative assemblies increase the disastrous consequences necessarily resulting from the guardians of the public weal sacrificing the first and noblest occupation of man, and the primary and most vital department of human economy.

Parties it has been affirmed by eminent writers are essential to the preservation and correction of governments. In the abstract they are doubtless so; but still they may receive such direction and become so venal in their as-

pirations, as to carry their views beyond that healthful action so necessary to promote the public welfare and advance individual prosperity and happiness. It is said that vicious legislation is worse than none, and we think we may venture on the assertion, that the converse of this proposition is equally tenable. To decline to legislate, when legislation is requisite, is equally as pernicious in its tendencies as to legislate over-much. That the farming interest do emphatically require assistance, is manifest from the exhausted condition of a large portion of our lands in the old states; from the desolating effect of emigration, which is severing the ties of centuries and sending the industrious and enterprising away from the land of their birth, to seek for homes beyond the walks of civilization, and from the impoverished condition of many who still cling to the scenes where their forefathers dwelt. Why then is this indifference? Why should those who have the strength in their own hands suffer their agents to sacrifice their interests by cold neglect? There is no good reason either for the one or the other, and we do most fervently hope that every farmer and planter will take the subject seriously into consideration and act according to the dictates of his sober and dispassionate judgment. That the memorial of the late agricultural convention in Virginia failed of being met in that spirit of enlightened comity to which it was entitled, should not deter further exertions. On the contrary it should arouse a feeling of indignation that would ensure success to future efforts.

BUCKINGHAM.

The owner of the splendid young Durham bull, Buckingham, who purposes sending him on a journey of amorous pilgrimage to Kentucky, gives us the following as his admeasurement.

	Feet	Inches
Height	4	7½
Circumference of knee	1	4
Breadth at Scapula	1	5½
From haunch bone to pelvis	2	
“ tail or sacrum to dorsal bone	5	3
Around the belly	8	2
“ girth at the shoulders	6	8½
Length from frontal bone to sacrum end	8	7½
“ of head	2	1
Depth at chest	2	3

This fine young animal is but 2 years old, is of the purest blood of the improved Durham stock to be found in the British empire, and was procured by his present owner under facilities of connexion and standing, which afforded him pre-eminent advantages of selection, such indeed as are rarely enjoyed by any individual, being an Englishman by birth and the son of one of the nobility. Intending to return to Europe in the fall for a short time, and having located himself in a part of Virginia not congenial to emigrant cattle, he had at first determined on selling him with his other imported stock; but on subsequent reflection he finds himself unable to reconcile his mind to part with an animal on which he had so prided himself, whose fine strain, form, and immense capacity for transmitting his kind, had so attached him to him, and he has therefore concluded to send him to Kentucky for a few months in order to permit the liberal and enlightened breeders of that enterprising state, to avail themselves of an opportunity of a cross from this "high-reaching Buckingham." He will be sent to Lexington, where he will remain until the return from Europe of his public spirited and enthusiastic owner. As we take a deep interest in the improvement of the breed of cattle of our country, we sincerely hope, as we believe he will, that this young aspirant for favor will find the gentler sex in the state whither he is destined to go, will lend a willing ear to his suits of love withal.

DISEASES OF SHEEP.

By David Low, Professor of Agriculture, &c.

THE ROT.

The diseases of these valuable creatures are sometimes of a very formidable nature, and baffle all the means of remedy which are known to us. Of these diseases the most dreaded is *rot*, which often extends over whole districts of country.

It is known that this disease is favoured or produced by a humid state of the soil and atmosphere. It is in wet seasons that it prevails the most, and is the most fatal. By draining land the tendency to it is lessened or taken away.—Often sheep are rotted by pasturing on the wet parts of the farm, whereas, if kept from these parts they remain free from disease. Nay, a single sheep that has a disposition to pick up its food in moist places will die, while the others will not be affected.

The animal affected does not all at once show symptoms of disease; for sometimes it remains a considerable time in apparent health, and long after it has been removed from the place of infection, droops and dies. Sheep are every year purchased in seeming health, and yet after a time they are found to be affected. A moist and even luxuriant autumn is dreaded above all things by the owner of sheep; for the seeds of infection are then often spread to appear in the following spring, or after the lapse of a long period.

The signs of rottenness in sheep are familiar to all shepherds. The animal becomes emaciated, its eyes become dull and glassy, a black purging generally takes place, the wool on being pulled comes readily away from the skin, the breath becomes fetid, and the urine is small in quantity and high coloured. As the disease proceeds, the skin is marked with spots, and the emaciation increases continually, until the sheep dies. In short, the term *rot* expresses truly the state of the animal. The disease proceeds with various degrees of rapidity; sometimes it attacks the entire flock suddenly, and sometimes its progress is gradual, and it affects only a given number of individuals. Graziers often avail themselves of the period of the animals beginning to decline, to rid themselves of an infected stock. During the first period of being tainted, the sheep have frequently a strong tendency to feed, and if killed in time, the flesh may not be perceptibly affected.

In all cases of *rot*, the disease is accompanied by a morbid state of the liver. During the progress of it, the fluke, a small animal, *Fasciola hepatica*, appears on the parts connected with the liver and the gall-bladder. At first the number of these creatures is small, but as the disease advances they increase, and before death are generally very numerous. In the last stage of this disease they have extended to the stomach and other parts.

Frequently the disease terminates favorably, the inflammatory action going off without destroying the parts. But even in this case, the taint is rarely removed, and years afterwards, when the animal has been fattened and killed, the liver has been found to be diseased, the flukes being in great numbers.

The best preventive of *rot* is to render the soil dry; hence, on all sheep pastures, the importance of draining. But should the disease, in spite of all precautions, appear, then we should, without loss of time, remove the sheep to a drier pasture, and supply them liberally with proper food. It is only, however, in the early stages of the disease, that a change of food will usually avail. If the disease has proceeded to a considerable extent, even though it should not have evinced itself by any great change in the external appearance of the flock, the animals will often perish hourly amidst the most wholesome food with which they can be supplied.

Of all the medicines that have been proposed for this fatal disease, salt alone is that whose virtue has been established by any satisfactory testimony. The beneficial effect of salt in the prevention and even cure of *rot*, has been confirmed by the observation of farmers in this and other countries.

Salt indeed will not in all cases prevent or cure the disease; for sometimes the tendency to it from particular causes, is too strong to be counteracted, and, when it has once attacked the flock, too violent in its progress to be arrested. But though salt is not a specific, it is the best means of remedy with which we are acquainted.

If salt be placed near the animals in troughs or on flat stones, they will eagerly lick it, and when disease threatens them, it may be given to them in any quantity in which they will consume

it; for it is then seen that they are obeying a natural instinct, in having recourse to the remedy; and in a wet season when disease may be apprehended, no one should grudge the trouble of so cheap and simple a precaution.

Much has been written upon the subject of this disease, but all that has been written, has nearly left us where we were with regard to the remedy.

It had been long known that wetness of the soil, however produced, gave rise to *rot*; that the best preventive was pasturing on dry ground and giving sufficient food, and that the best remedy where disease appeared was a change of pasture. To these results of old experience is to be added, the using of salt.

[From the Albany Cultivator.]

COMPOST.

There are two ways of making a compost, or mixture of earth with manure. Agreeably to one method, a mound is formed in the barn yard or near it, consisting of alternate beds of manure and earth; when the manure has fermented, the mass is turned over with the spade and partially mixed. After a renewal and subsidence of fermentation, the materials are again turned over with a spade, and more thoroughly blended together. The compost is then drawn out and spread on the field.

The other way of mixing earth with manure, is much less laborious and expensive, and is thought to be, in many respects, more advantageous. The method is this. In the Spring of the year, draw out all the manure, including straw, corn stalks, cobs and all other coarse materials fit for the purpose, into the field; spread it, and turn the whole under the soil, from six to twelve inches deep, with the plough. In order to have the work well done, one or more persons must follow the plough, and with a rake, or hoe, or fork, place the coarse manure in the bottom of the furrow.

When the manure is not spread over the whole of the field, as in common cases, and the coarse materials cover a still less portion of it, one person is sufficient to follow the plough. But when a lot is entirely covered with coarse manure, two followers will be required, and even three if the business is not properly arranged. The following regulation will save the labor of one hand, by rendering unnecessary the passing and re-passing of the rakers, which the method, suggested by our first thoughts, would require. The first raker must set in after the plough, and continue his course; when the plough has performed one bout, the second raker begins his course. The first raker upon completing his round will stop: for he will find the furrow here filled with manure by his companion; but his stop will not be long, for the team will be close upon him, barely allowed time to step aside and permit it to pass; when he again sets in with his rake or hoe or fork. In this way the business will be conducted with great regularity and to the best advantage.

When the manure has been thus buried under ground, it is usual to plant corn in the field, that plants may be present to partake of the food which the manure furnishes during its decomposition, and also, to keep the field constantly

producing valuable crops. In autumn after the corn is gathered, the soil is turned over with the plough, and the assistance of the harrow, the decomposed manure and the soil are well mixed together. The compost is now perfected and the field is in a state of preparation for winter grain.

To this method, it has been objected, that the gases, which first escape during the fermentation of manure, are poisonous to plants, and that their disengagement should be effected, in places where they could not exert their efforts injuriously. The results of several experiments which I have made, would appear to speak a different language from this.

I excavated a spot in my garden, about a foot deep, and filled it half full with clean wheat straw; over this was thrown the soil which had been displaced, and melon seeds were planted. The fruit was the largest and best I had ever raised. Upon examination, I found that the straw had undergone a thorough decomposition.

Another spot in the garden I trenched, to the depth of two feet, and deposited in it manure from the horse stable six inches deep, and then filled the trench with the soil which had been thrown out. On this bed were sown parsnip seeds; when the roots had attained the size of a goose quill, I dug some of them up. The roots had passed straight down to the manure, and at this depth, which was eighteen inches, they were of two thirds of their size at the surface; the roots when dug for the table, were rather long than large, and they were excellent.

I excavated another spot in my garden, three feet in diameter and a foot deep, and threw in fresh manure from the horse stable, without any admixture of straw, to the depth of six inches after it was pressed down. In the centre of the manure I placed a stake two inches in diameter, and completed the filling up with damp clay well stamped down with a spade. The stake was then withdrawn, and the hole, having the capacity of about a pint, was filled with garden mould; in this were planted two kinds of corn. The stalks of these plants were not large; but, from the first, they preserved a healthy color, and each one produced a fair ear. The particulars of this experiment were so arranged as to cause the gases evolved from the manure, to act with the greatest force on the tender roots of the corn plants as they became developed; and when we consider the effects of the extreme drought which prevailed last summer, and that the roots of these plants were confined to about a pint of fertile earth, it is reasonable to suppose that the manure supplied them with wholesome nourishment, rather than concentrated poison. If coarse manure be but thinly covered over with earth, the soil will be too puffy and dry to produce healthy plants, but I can assert from repeated observations, that the hottest kinds of manure, buried a few inches deep, warm the soil and give additional vigor to vegetation, as well in the gardens as in the fields.

Gapes in chickens.—On the subject of disease of chickens called the gapes, a writer remarks: "On the dissection of chickens dying of this disease, it will be found, that the trachea (or wind

pipe) contains numerous small worms, about half an inch in length, and the size of a small cambric needle; on the first glance, they would likely be mistaken for blood vessels. These worms may be dislodged and the disease cured by the introduction of tobacco smoke into the mouth until the chicken becomes insensible; in this state it will remain for 1 or 2 minutes. The operation may be repeated at pleasure, without endangering the life. The first application will usually produce the death or expulsion of the worms, and the removal of the affection—the second always.

[From the Boston Advertiser.]

BET ROOT SUGAR.

We have already published an interesting letter from Mr. Isnard, on the subject of the manufacturing of the Beet Root Sugar. We now publish another letter on the same subject, addressed by him to the President of the Agricultural Society, in answer to some inquiries made by the officers of that society, which will be found deserving of notice.—*Daily Adv.*

At a meeting of the Board of Trustees of the Massachusetts Society for promoting Agriculture, held 9th April, 1836:—

The President sent to the board a letter of introduction from Gen. Dearborn to him, (of the French Consul, Mr. Isnard,) with a view to the introduction of the Sugar Beet, and the mode of extracting the Sugar.

Voted, That the subject be referred to the President and Mr. Gray.

A copy of the record.

BENJ. GUILD, Sec'y.

In accordance with the above vote, the committee therein named, have had an interview with Mr. Isnard; and the following interesting letter upon the subject of the manufacturing of Sugar from the white, or Sugar Beet, so called, has been received from him. The committee learning that this subject has of late created conversation amongst the farmers and others, have been induced to give publicity to Mr. Isnard's letter, previously to submitting it to the board of Trustees, whose meeting stands adjourned to the 14th inst. Those of the Trustees to whom said letter has been communicated, approve of its immediate publication.

Sir,—As you have expressed a wish that the cultivators of this country might be generally informed of the principal observations made in France upon the culture of the sugar beet, and also what benefits they might derive by the making of Sugar; and for my own part being desirous of fulfilling the promise I made to the public, in my first communication on the above subject, to give further information when called for; I have now the honor to transmit to you the following, which appears to me sufficient for the present, being ready at any time to enlarge on the subject, if required.

The variety of beet to which the sugar manufacturers now give the preference, is the white Beet, (*Beta alba*), imported into France from Germany; next to it is the yellow Beet, (*Lutea major*). The first ought to be preferred in this climate, as it stands better against frost and rotting.

This variety must not be confounded with another very similar, called in French *Disette*, Scarcity Root, (*Beta silvestris*), also white, though very often striped red and white; this last is a great deal larger, more watery, but deficient in sugar.

The choice of the best Beet will not suffice; care ought to be bestowed on the cultivation, in order to enhance and to perfect its saccharine principle, and even facilitate the several processes for obtaining the sugar.

Deep, light, rather sandy, but rich soil is requisite to raise an abundant crop of Beet of good quality. Beets raised on a field newly manured have proved to contain salts detrimental to sugar, and which increase the difficulty of obtaining it. Good pasture land, not marshy, broken up and planted with Beet, produces the most saccharine roots. The transplanting has been discontinued as more expensive, less certain, and the young plants so transplanted producing roots less perfect in shape, a matter of some consequence, owing to the subsequent mechanical operations, those roots are to be submitted to; and also owing to the aptness of the plant so transplanted to rise out of the ground while growing, which causes a great loss to the sugar manufacturer, since it has been proved by analysis that the portion of the root so exposed to light and air, is far from being so rich with sugar as the part which is under ground; hence the necessity of hoeing and earthing up the roots. Seeds ought to be laid in rows at two feet apart, that distance will allow us to perform the weeding, the hoeing and the earthing up easily, by means of a proper hoe or plough, drawn by a horse, now generally used in France.

The gathering offers nothing particular; care ought to be taken not to hurt the roots; they should be deprived of their small fibrous roots, and also of all the green part of their top to which the leaves adhere. The stowing of a large quantity of beet deserves the greatest consideration, in order to prevent their heating; for if they vegetate the saccharine principles enter into new combinations, and sugar can no longer be obtained with the same profit.

In Germany the leaves are carefully dried and used as a fodder for cattle. In France the leaves not immediately used are left on the ground as a manure.

The expenses attending the cultivation of one acre of land planted with Beet, will vary according to circumstances; every farmer is to judge for himself.

The quantity of Beet gathered on one acre will also vary even from 300 to 500 bushels. A respectable farmer of this country has assured me, that 600 bushels would not be considered an extraordinary crop on a rich soil, and with proper management. Nothing in this remark ought to surprise us, for admitting the roots at 2 feet apart, 11,000 roots will be gathered on an acre. The average weight of each may be 3 1-4 lbs. In fact many will weigh as much as 8 lbs. In the following calculations, I take for granted 350 bushels as the average crop of one acre, a bushel of Beet to weigh 60 lbs.

As to the benefits which a farmer will derive by the cultivation of one acre with Beet for the making of sugar, they can be stated as follows:

800 lbs. good Muscovado Sugar valued at 8 cents per pound,	\$64
50 gallons of Molasses, good for distillers, at 16 cents per gall.	8
4 tons of Pumice, a good food for cattle, \$3 per ton,	12
1 ton of dry leaves, or their value as manure,	5

Total, \$89

Owing to the want of skill and experience, I admit at only 4 lbs. the quantity of sugar obtained, though 5 lbs. is generally obtained, and even some manufacturers obtain as much as 7 lbs. of sugar for every 100 lbs. of beet. From this amount ought to be deducted about \$5 for sundry ingredients for manufacturing purposes; also the cost of one cord of wood for fuel. The several operations will be performed by the farmer at his leisure time. The expenses for tools, apparatus, &c. &c., can be valued at about \$120; but should the works be enlarged so as to work a double or greater quantity, those expenses would by no means increase in the same ratio.

Should a company be formed to carry on conjointly the cultivation and the manufacture of sugar on a large scale, other benefits would be derived - 1st. By the improving of a large tract of land. 2d. By the refining of the sugar at a trifling additional expense. 3d. By the fattening of cattle. 4thly. Getting the most of sugar at the least expense possible, by being enabled to secure the service of competent superintendents, and by making use of labor-saving machines moved by steam engines; all of which I am ready to demonstrate on application made to me.

In my first communication on this subject, I have stated, that the pumice of beet was a better food for cattle than beet in their natural state; to this assertion objections have been made; allow me, sir, to support my position by a few observations more, inasmuch as they will impart a more correct knowledge of the benefits that can be expected by some new improvement in the process of making the sugar of beet.

By chemical analysis 100 lbs. of beet root prove to contain 85 to 90 lbs. of water, 6 to 11 lbs. of sugar, 1 to 2 lbs. ligneous substance. Pectic acid, albumic, salts, earth, together 2 to 2½ lbs. The greater the proportion of water, the less is the proportion of sugar. The average quantity of juice obtained from 100 lbs. of beet is about 70 lbs.; the weight of the pumice left is 30 lbs. The quantity of sugar extracted from the 100 lbs. of good beet by those who are skilled in the process, is now 7 lbs; but from 1 to 2 lbs. of it is mixed in the molasses; consequently the pumice is proportionably more rich in saccharine principle than the beet. In its natural state the beet holds 85 per cent of water; the juice obtained from it holds 63 lbs. of water; then 22 lbs. of water remain in the 30 lbs. of pumice; consequently in less proportion than in the beet. This is not all, in the pumice the water is almost solidified, as it has been observed, by the pectic acid, which is combined with it, and contributes in a great measure to render the pumice so nutritious; if added to this, that the pumice is easily chewed and better digested, it is not surprising that cattle relish it more than

the common beet, and thrive exceedingly well when fed upon it.

The following is fact: the first year I manufactured sugar in France, I offered the pumice for sale, for what milkmen were pleased to give; they soon finding the benefit derived from it, offered more for it than for common beets. Wishing to ascertain what price they were willing to pay for it, I asked as much as one half more than the price I paid for common beet (all by the weight) and yet found a sale for it. They said that 100 lbs. of pumice went further than an equal weight of beet; that they were saved the trouble of washing and cutting them; that when feeding cows with pumice they could save the dry food they were obliged to give them, when feeding them with beet.

Should these observations, for which I beg your indulgence, be in any way deemed beneficial for the promotion of this new branch of agricultural industry in this country, they are, sir, at your disposal for whatever circulation you may be pleased to give them.

I have the honor to be,

with the highest respect, sir,

Your most obedient servant,

MAX. ISNARD,

French Vice Consul for Boston.

To the Hon. L. WINTHROP.

Boston, April, 15, 1836.

SMALL FARMS.

There is a great mistake among farmers. And that is, they covet too much land. Almost all our farms are probably from four to ten times too large. A farmer never feels that he has got enough. He adds field to field, does not half subdue or manure what he has got, and still wants more. One of the most productive and profitable farms I ever saw, contained but fourteen acres. It was very much subdued, and improved and manured; and the owner was what was called a very thrifty, if not a rich man, while his neighbor who skims over three hundred acres, and works full as hard, grows poor. By proper management I am satisfied every acre of land which is fit to raise corn upon can be made to yield one hundred bushels to the acre. Is it not better to put the manure and care and labor upon it, and raise the one hundred bushels, than to spread the same over four acres, and thus drive away three or four of your sons to the west? As things now are, what is the process? I will tell you. A man owns one of our large farms. It is paid for. He raises up a large family. The girls are married off, and he gives each one her portion. He himself, dies, and his farm falls to his five sons. One of those five sons take the farm, and agrees to pay the other sons their shares. They go off to the west and return no more. He undertakes by economy and industry to keep and send a fourth of its value to the west. By and by, he finds he cannot do it as fast as he agreed to do it. He goes to the Life Insurance Company, or somewhere else, mortgages his farm, and starts anew to pay for it. All his life he toils, pays interest, thinks the farmer has a very hard row to hoe, and it is not till near the close of his life that he gets free from debt. When he dies, the same process has to be gone over again, and every generation, we send four-fifths

of the value of our lands after them. Now this is poor policy: and I sometimes wonder that our farms are in any tolerable condition; for their worth many times over has been sent away, to the west. If, instead of this, our farmers would divide up their farms, and make every acre yield all it can, our towns would not have the appearance of age and decay which many of them have. "Praise a great farm," says the immortal poet of Rome, "but cultivate a little one."

I have noticed that men as they grow old seem to want more land; and seldom do you find a man who feels he has enough. I know they talk of the fertility of the west, and the beautiful land to be found there. And I know too, that a young man going out there, if he does not die under it will in a few years become thrifty. And why? The process is easily described. He goes into the wilderness, purchasing his land, lives in his log cabin, sleeps on the floor, or more likely upon the ground, eats upon a slab pinned up into the logs, and eats what comes to hand, working early and late, and it would be wonderful indeed if he did not gain property. And so would he here. Let a young man take the poorest farm you can name, and labor on it as hard, and live just as he does at the west for fifteen years, and he will be rich here. It is not so much the land that makes the difference, as it is the manner of living, between the west and the east. I was struck while riding in the stage, in listening to the conversation between two farmers, the one from Illinois, the other from the state of Maine. The western man was describing the fertility of the soil, contrasting it with New England. "Why, how much corn can you raise to the acre?" says our man from Maine. "I can raise all of seventy bushels with all ease." "And how much do you get a bushel?" "Nine pence a bushel at my door." "Well," says the Maine farmer, "I can raise three hundred bushels of potatoes on my land, and get twenty cents a bushel at my door." "Ay, you have to dig them." "True, and don't you have to pick and shell your corn, and after all get but twelve and a half cents a bushel, and only seventy bushels on an acre." I repeat it, with the same economy and the same industry, a young farmer here can get rich as easy as at the west. Whether they will practice equal economy is more than I can say. But let the fashion once prevail of having smaller farms and having them better cultivated, and you will be surrounded by your own sons, instead of large landholders, and a floating population, who hire themselves out to cultivate it, and who have no land.—*Maine Farmer.*

CORN, GRASS SEEDS, MANGEL WURTZEL

[From the Cultivator.]

Sir—If anything in the following communication is worth publishing, it is at your service

The 2 last years, corn has been raised in the following manner, on the Mohawk Flats, near this city. If in grass, the land is ploughed and well harrowed, lengthwise of the furrow, without disturbing the sward. The ground is then prepared for planting, by being marked out 2½ feet one way, and 3 feet the other. The last season, the field was rolled after being planted, with evident benefit, as it made it level. When

the corn is 3 inches high, the cultivator is passed through both ways, and twice afterwards it is used in the same manner; no hills are made, but the ground is kept level. Neither hand, hoe nor plough are used, after the corn is planted. Fields manured with coarse manure have been tilled in the same manner. Corn tilled in this way is as clean of weeds, as when tilled in the usual way; it is no more liable to be blown down, and the product is equally good. It saves a great deal of hard labor, which is an expensive item in the usual culture of corn. Last October, 10 rods measured out, in 2 different places, in a corn-field on grass land—the one yielded 10, the other 9, bushels of ears. In one corn-field, after the late dressing in July, timothy and clover seed were sown, and in the fall the grass appeared to have taken as well as it had done in adjoining fields where it had been sown with oats.

The following is the result of your Dutton corn with the common yellow eight-rowed:

	Inches.	grain weighed	oz. dr.	oz. dr.
One year Dutton corn measured 10½	do	7½	1 do	12 ½
do do do 11	do	6½	1 do	12 ½
do eight-rowed, do 10½	do	5½	1 do	12 ½
do do do 10½	do	5½	1 do	12 ½
do do do 10	do	5½	1 do	12 ½

Jan. 14, 1835.—Half a bushel of ears of Dutton corn weighed 20 lbs. The grain when shelled, weighed 15 lbs. 11 oz. The cobs weighed 4 lbs. 4 oz.—The grain measured nearly nine quarts.

Half a bushel of ears of the eight-rowed weighed 20 lbs. 11 oz. The grain weighed 17 lbs. 1 oz. The cobs weighed 3 lb. 10 oz. The grain measured 9 quarts.*

Our grass seed is sown in the following manner:—

After the oats or barley are about 4 inches high, the grass seed is sown, and a roller with a bush fastened behind it, is immediately passed over the field, which covers the seed sufficiently, and makes the field very level, without injuring the barley or oats, which in 3 or 4 days are up as straight as ever.

Last spring half an acre of lucerne was sown in this manner on barley, and when the winter commenced, it was thick as it could stand, and nearly two feet high, while the common red clover in the same field was only one-third of that height.

On the same farm, the last season, 600 bushels of mangel wurtzel were raised from half an acre and 8 perches of land, being at the rate of 1,038 bushels per acre. The ground was manured with coarse manure; 3 pounds of seed were sown in rows, 2 feet apart, and tilled with the cultivator only. The hand weeding in the rows was amply compensated after midsummer, by the thinnings out, which kept 8 pigs till corn was ripe. The expense of cultivation was about the same as if the ground had been planted with potatoes.

Respectfully yours,

CHARLES H. TOMLINSON.

*The important inquiry is, which variety produces the most grain in a row, or on an acre—which ripens earliest?—Conductor.

NEW SPRING WHEAT.

J. BUEL, Esq.—SIR—I send you enclosed a small sample of *Italian spring wheat*. This

sample is taken from a parcel I purchased a few years since, and is part of the four year's crops since the introduction of the original importation. The seed was brought to this country in 1832 by Signor J. B. I. Carbonai, from the city of Florence, Italy. The cask was sold for charges; I bought it, and finding it a heavy and beautiful grain, prevailed with several of our farmers to sow it; the result was most gratifying. Sowed side and side with our country spring wheat it exceeded it two feet in height, standing on the ground, and yielded double the quantity, weighing 63 pounds to the bushel. It has succeeded well every year since, producing from 25 to 30 bushels to the acre; grows well on every variety of soil on which it has been sown. Very few of our farmers will now sow winter wheat, finding this wheat a sure crop.

Your ob'dt,

J. HATHAWAY.

Rome, N. Y. March 24, 1836.—Ibid.

From the Newburgh Telegraph.

April 7, 1836.

To the Editor, Sir:—In your paper of the 24th ult. you publish from the Poughkeepsie Telegraph, over the signature of Mr. DAVID HARRIS, a farmer of that place, the whole amount of the proceeds of his farm for the year 1835, which amounted to the round sum of \$3,292 94; and the amount of the sales of the same (after deducting \$275 for labour) gave a nett profit of \$2,447 94. You ask then "Is it the superiority in the soil of Old Dutchess, or the superior skill of her farmers, which enables them to shew results so incomparably beyond any that have been shown from Old Orange," and you quaintly remark, "see that it be not found in the latter," viz: the superior skill of the farmers of Dutchess over those of Orange. Now sir I have no desire in the least to detract from the practice due, and justly due, to Mr. Harris, as an enterprising farmer, for knowing goes beyond report, and my opinion is that Mr. Harris is an enterprising man and a skilful farmer, or in the common phrase a *good farmer*. But I do not think the result depended entirely on his superior skill, nor the superiority of the soil, but arose from the high state of cultivation, combined with the location of Mr. Harris' farm, added to the fact, that he has a hay press on his farm, for you will find that it was principally the sale of Hay which swelled the amount of sales. If you deduct the price of the hay it leaves but \$685 44. Now I have been informed by Mr. Harris himself that his farm is in a high state of cultivation, and I have heard that it contains 160 acres, and well supplied with meadow, and Mr. Harris had \$23 50 per ton for the hay sold, which is at least one third more than the ordinary price of hay. So that I would infer from this (if correct,) that it is not alone the superior skill of Mr. Harris nor the superiority of the soil, (though I have known Mr. Harris as a farmer of the town of Newburgh, and think that he is possessed of no ordinary degree of skill as a farmer) that could have enabled him to shew any thing to be compared with his late statement. I think it is owing in a great measure to the reasons I have stated. I therefore hope that the farmers of Orange County will

take the hint and give through your valuable journal the information which will create a spirit of emulation among them, for we have good farmers and good farms in Orange County. I myself am a farmer of the town of Newburgh. My farm consists of sixty acres, not inferior to any in Orange County, yet far inferior in state of cultivation. Twelve and a half acres is a wood lot, about 80 acres tillable, part of which is very stony.

It is principally under grass. I will give you a statement of my sales of this farm for the year 1835, as follows:

Butter (sold fresh, and freight deducted,) 931 lbs.	\$203 94
Calves,	10 49
Beef, principally young cattle,*	86 50
Potatoes 107½ bush. 37½ cts.	40 31
Pork, dead,	76 29
Cider,	12 60
Oats, 77 bushels, at 50 cts.	38 50
Rye, 19½ bushels, at 94 cts.	18 28
Corn, 24 bushels, at 72 cts.	18 72
Buckwheat, 12 bushels, at 50 cts.	6 00
Apples and Turnips,	4 00
Poultry,	14 75

\$530 27

Now sir if a small farm so situated will produce so much with a farmer professing hardly ordinary skill, what will be the result when superior skill, good soil and well cultivated farms are combined. If you think the above would be a means of making our farmers speak out it is at your service.

A SUBSCRIBER.

Newburgh, March 31, 1836.

*The sale of beef lessened my stock, but I have grain and hay to sell that will amount to what the cattle butchered were worth last spring, which will make the beef the gain of last year. I winter but 10 Cows and 2 Horses.

[From the Silk Culturist.]

CULTURE OF ONIONS.

The town of Wethersfield has long been famous for the large quantities of onions which are annually raised and exported to the West Indies and the Southern States. It has been superstitiously supposed there is something in the soil of Wethersfield peculiarly adapted to the culture of onions; and this whim has no doubt discouraged many from attempting the cultivation of this valuable root, in other sections of the country, equally favorable to its growth. It is true the soil of Wethersfield is a rich sandy loam, well adapted to horticultural purposes; but the success of its inhabitants in the culture of onions, is attributable in a much greater degree, to a particular virtue in the fingers of its females, than any peculiar properties in its soil.

The business of raising onions in Wethersfield, is reduced to a perfect system. The following is the method of cultivation. Early in the spring the land is manured by ploughing in fine manure from the stable or barn-yard, in the proportion of about ten loads to the acre. That of neat cattle is preferred, as that of horses is considered of too heating a nature. After the manure is ploughed in, the land is

well harrowed and laid out into beds five feet wide.

The beds are laid out by turning a furrow towards them each way. This raises the bed above the aisles and gives an opportunity for the water to run off should there be occasion for it.—They are then raked with an iron tooth, or common hay-rake, and the aisles suffered to remain as left by the plough. Thus prepared, the beds are ready to receive the seeds.

As early as the season will admit, the seed is sown in the following manner. A rake, with teeth a foot apart is drawn crosswise of the beds for the purpose of making drills for the reception of the seed. The seed is then sowed in the drills with the thumb and fingers, and covered with the hand. From ten to twelve pounds of seed is put upon an acre. After the plants come up they are kept free from weeds, which generally require four weedings. A hoe of suitable width to pass between the rows is used in weeding, which saves much labor. When ripe they are pulled and the tops cut off with a knife. A sufficient length of top is left to tie them to the straw in roping.—or bunches of 3 1-2 pounds as required by the State. An ordinary crop is from 6000 to 8000 ropes to the acre. The quantity annually raised in the town, is estimated from 1,000,000 to 1,500,000 ropes, which are sold at an average price of \$2 a hundred, amounting to from \$20,000 to \$30,000.

Most of the labor of raising onions in Wethersfield, is performed by females. The cultivation of an acre requires from fifty to sixty days labor of a female, whose wages, including board is about forty two cents a day. Though many of the young ladies of Wethersfield spend a portion of their time in their onion gardens; yet in personal beauty, education and politeness, they are not excelled by females of far less industrious habits.

SALES OF STOCK CATTLE.

CINCINNATI, April 9.

On Thursday there was an auction sale of the stock of cattle of the late Jephtha D. Garrard. We subjoin the names, age and blood of the different animals, with the prices for which they sold. Such a schedule may be interesting now, and for future reference.

Baron Steuben, full-blooded Durham bull—two years old		\$465
Nymph, 6 years old, full-blooded Durham cow		370
Octavia, 2 do do	heifer	575
Virginia, 1 do do	do	510
Sylvia, 12 do do	cow	300
Hyacinth, 10 do do	do	295
Helen, 1 do do	heifer	325
Little Blinky, 3 do do	cow	125
Star, 1 do do	heifer	80
Cinderella, 1 do do	do	110
Matilda and calf 2 do	do	180
Julia, 2 do 15-16	do	180
Charlotte, 1 do do	do	150
Spike and calf, 6 do	cow	200
Bloss, 4 do 15-16	do	130
Big Bug, 6 do 1/2	do	170

Cherry & calf 5 do	3	do	155
Speck, 8 months	1 1/2	bull	50
Black, 5 do	1 1/2	cow	41
Old Spike, 12 do	3	do	68
Glasseye 8 do	1 1/2	do	82
A steer, 1 do	3/4	do	36
Hamilton, 1 do 15-16		bull calf	75
Spotty, 5 do 1-2		cow	88
A yoke of oxen 3 years old,			80
Do do 2 do			43

There were a number of purchasers on the ground from Kentucky and Indiana, as well as from all parts of Ohio. There was much competition among the bidders, and in several instances liberal advances were offered on the above prices after the sale.—The farm, consisting of about 475 acres, was bid off at \$60 per acre.

JOHN J. WRIGHT, Auctioneer.

CUT-WORM.

The ravages of this insect last spring, particularly in our corn fields, gives an importance to every suggestion which may promise a preventive. The remedy suggested below, has the sanction of philosophy as well as experience, and promises the further benefit of being decidedly beneficial to the growth of the corn.

The labor and expense of making the application are comparatively trivial. It is probably the caustic qualities of the alkali afforded by the ashes and lime, that keep the worm from the circle of its influence, or destroyed it. We copy the article from the *Tennessee Farmer*.

"As soon as the corn is covered with earth, let a hand follow, having a bag hanging at his side, containing ashes and plaster mixed, one third of the latter, and two thirds of the former, or ashes alone, either leached or unleached.—The latter would probably be preferable—and let him drop a handful on each hill of corn. We would recommend, where it can be obtained, the partial substitution of lime for ashes, in which case, to preserve the hands of the dropper from injury, it will be necessary for him to use a cup, shell, or gourd, with which to take up the lime—each bag should be large enough to contain as much of the substance used as the dropper can conveniently carry. We request our readers in this vicinity to give the foregoing a fair trial, and to furnish us with an accurate account of the result, both as to its effects in preventing the ravages of the Cut-Worm and in increasing the the crop. In our use of ashes and plaster, they were dropped on the seed corn, and covered with it. The effect on the crop was decidedly and greatly beneficial. For preventing the ravages of the Cut-Worm, there is good reason to believe that it would be best to deposit the ashes on the hill after the corn is covered, and this mode will probably be found nearly, if not quite, as beneficial in increasing the crop."

WIRE WORM.

Schenectady, 18th June, 1835.

SIR—In many parts of this country, the wire worm and grub have injured the corn, oats and barley, growing on land that had previously been in grass. Does ploughing grass land in the fall kill the worm? I am inclined to think it does

not, because a meadow on our Mohawk flats, containing four acres, was ploughed last fall and planted this spring with corn previously soaked in a solution of copperas. The corn planted on three of the acres was also smeared with tar. The worms have been much more destructive among the corn that was tarred, than that which was not. This was probably owing to their being more numerous in that part of the field. A few days since, in reading one of late numbers of that valuable English periodical the *Farmers' Series of Useful Knowledge*, I found that in England they destroy these worms in grass lands in the following manner:—Knowing that the worms come above ground in the night, they at that time spread quicklime in a state of powder, over the grass, which is evenly done by throwing it with a shovel high in the air from the rear of the cart, which is driven across the field. The worms crawling about at that time are covered with lime, which soon kills them.

Respectfully yours,

C. H. T.

REMARKS.—The wire worm, we think, does not come to the surface at night—It remains fixed in the corn upon which it preys. It is the alkaline property of the lime, carried down by water, which destroys them, if any thing. Tar is no preventive, nor fall ploughing, nor any application that we know of. Salt, at the rate of two or three bushels to the acre, is said to be efficacious.—The grub or cut-worm comes to the surface at night.—*Albany Cultivator*.

Seed Corn, that is steeped preparatory to planting, should not be suffered to dry on the surface of the ground, or by exposure too long to the sun, but should be buried in the earth while moist. In our last spring's planting, after finishing one field, which came up well, the seed was left exposed, a day, in a basket, to the sun, and planted the day following. Much of this seed failed to vegetate, and some of that which grew, had a sickly, dwarfish appearance through the season. The like happened to Mr. Weston, of Washington, and Mr. Brewster of Oneida. Another gentleman has informed us that he planted steeped seed: that the three first rows were covered immediately, but that the residue was not covered until the whole field had been dropped, and the seed become dry. The three rows came up and grew well; the residue came up but imperfectly, and the plants they produced were inferior and dwarfish. The cause of these failures may be thus explained: Germination had commenced in the steep; a chemical change had taken place in the cotyledons, in the matter which feeds and sustains the young plant till it develops its leaves, and can take care of itself,—and by the subsequent drying, this nutriment was partially or wholly destroyed, and the corn failed to grow, or grew but feebly, for want of it. Where germination is stopped, after it has commenced, for want of moisture, the vitality of the seed cannot be again resuscitated. We have had seed corn, after it had been steeped, kept good in a basket 5 days, in a cellar, where it sprouted, and was afterwards planted, and grew well.—*Cultivator*.

Vinegar in Cream—The difficulty and labour frequently attending the churning of butter, led

me to try a variety of experiments to ascertain if a method could be discovered for making butter come quicker than the usual mode. After trying several things, I found that by adding a table spoonful of good vinegar to four gallons of cream, when put into the churn, I obtained butter in from seven to eight minutes. If this information will be of any service to your subscribers, you are at liberty to publish it.—*Far. & Mech.*

Receipt for making cold Soap.—The leach tub or hogshead must be covered at the bottom with straw and sticks—then put in a bushel of ashes, then two or three quarts of unslacked lime, upon which you must throw two quarts of boiling water to excite fermentation and slack the lime; put in another bushel of ashes and as much more lime and water, and continue to do so until your vessel is full; put in hot water till you can draw off the lye, after which the heat of the water is not of much consequence. You must have, at least, two thirds of a bushel of lime to a hogshead, if you wish your soap to be made quick; one hogshead of ashes will make two barrels of soap. When you draw off your lye you must keep your first two pailfuls by themselves, and the next two in another vessel, and the third two in another vessel still; then weigh 29 pounds of clear, strained grease, or of scraps, without straining, 32 pounds, put into a kettle with three pounds of rosin; then pour over it one pailful of lye from the first drawn vessel, and one from the second drawn vessel; put it over the fire and let it boil twenty minutes—be particular to add no lye over the fire, but swing off the crane if it is in danger of boiling over; put it into your barrel and add one pailful of lye from the third drawn vessel, and give it a thorough stirring; then weigh your grease for another barrel, and take the lye remaining in the vessels, in the same manner as for the first barrel; then draw off your weak lye, and fill up the vessels as fast as possible, remembering to put half to each barrel, that they may be equally strong; if your leach run through fast you may have your barrels full in an hour, and so hard that you can hardly stir them. You must stir it after you begin to put in your lye, till your barrel is full. Fourteen quarts of melted grease is the quantity for a barrel.

[Many families in this town make their soap according to the foregoing, with perfect success.]—*Hamp. Gaz.*

Fruit Trees.—Let it be observed as a general rule, always to plant or transplant your fruit trees before a leaf expands or a blossom appears; it is true, that some plant later, but never with equal success.

OXEN WANTED.

THE EDITOR OF THE FARMER AND GARDENER, Baltimore, Md. wishes to purchase 4 pair of Eastern OXEN. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective Oxen, price deliverable at Baltimore, and time when they can be delivered there.

May 24th.

At.

SPLENDID DOUBLE DAHLIAS—FIELD BEANS, &c.



WM. PRINCE & SONS have received five collections of Dahlias from Europe, selected from the most celebrated establishments there, and comprising the very elite of all that have been brought into notice there during the last two years. These will be furnished at the most moderate rates. Of the older varieties they have a great stock, comprising a great number of choice varieties that are yet sold at high rates elsewhere; but which we now offer at 3, 4, 5 and 6 dollars per dozen, according to the kinds. Priced catalogues will be sent to every applicant, and orders for trees, plants, or for garden, agricultural and flower seeds, will receive the utmost attention.

650 bushels of White Field BEANS of a superior quality and of a very prolific variety, at \$2 per bushel by the barrel or tierce—*Terms Cash.*

Linnaean Garden and Nurseries, Flushing, near New York.

May 24th.

At.

FIELD & GARDEN SEEDS, &c. WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and RARE FIELD seeds, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the *Clairmont Seed Gardens*, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of *Cabbages, Lettuce, Peas, Beans, Cucumbers, &c.*, none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are 250 bushels *Garden Peas* of various sorts.

95 bushels *Dwarf and Pole Beans*.

2000 lbs. *Cabbage Seeds*. About 35 fine sorts, among which are the *Scotch Early York, London Battersea, Flat Dutch, Globe Savoy, Early Harvest, &c.*

150 lbs. *Cucumber seed*, about 12 sorts, among which are *Keene's Long Green, Long Green Turkey, &c.*

1800 lbs. *Radish seeds*—principally of *Short top Scarlet, Yellow and Red Turnip*.

300 lbs. *Beet and Mangel wurzel seed*.

50 lbs. *Green Curled Borecole*, or *Scotch Kale*, purple curled—blue curled, &c.

35 lbs. *Cauliflower and Brocoli*—best European sorts.

200 lbs. *Carrot seed*—for garden and field.

75 lbs. *Lettuce seed*—the curled *Silecia*, large white or *Lazy, brown Dutch and Malta*, are best sorts, the latter particularly fine for forcing.

270 lbs. *Onion seed*—several French and American sorts.

Also—*Tart Rhubarb seed, Tomato, Egg plant, Squash, Black and Orange Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive, &c.*

FIELD SEED.

60 bush. *English and Italian Rye grass seed*.

50 do *Green Sward grass*, for yards, &c.

1,200 lbs. *Scarlet Trefoil or clover, Trifolium Incarnatum*.

800 lbs. *Lucerne or French clover*.

50 bush. *English and Poland oats*.

250 lbs. *Skinless or Huskless oats*—new—great product.

150 bush. best *English and American Early Potatoes*.

100 lbs. *Gama Grass seed*—this grass bears cutting every 15 days, and of course the product is immense.

50 bush. *White and Yellow Field corn*.

ROBERT SINCLAIR, Jr. Seedsman,
Light st. near Pratt.

FLOWER SEEDS,

Time of planting most sorts about 15th May.

150 kinds FLOWER SEEDS, finest selection of annual, biennial and perennials, put up in papers at 64 cts. each, or \$5 per 100.

may 10

R. SINCLAIR, Jr.
Light near Pratt st. wharf.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BEANS, white field,	bushel.	1 25	—
CATTLE, on the hoof,	100lbs.	8 00	8 75
CORN, yellow,	bushel.	—	80
White,	—	—	75
COTTON, Virginia,	pound.	—	—
North Carolina,	—	—	—
Upland,	—	18	18½
FEATHERS,	pound.	48	—
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's,	—	7 50	8 00
Do. do. Superfine,	—	6 87	7 12
SuperHow. st. in good de'd	—	6 37	6 50
“ “ wagon price,	—	6 25	—
City Mills, extra,	—	—	7 00
Do.	—	6 50	—
Susquehanna,	—	6 75	—
Rye,	—	—	—
Kiln-dried Meal, in hhds.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
GRASS SEEDS, red Clover,	bushel.	5 25	—
Timothy (herds of the north)	—	—	—
Orchard,	—	none	—
Tall meadow Oat,	—	—	—
Herds, or red top,	—	—	—
HAY, in bulk,	ton.	18 00	20 00
HEMP, country, dew rotted,	pound.	6	7
“ water rotted,	—	7	8
HOGS, on the hoof,	100lb.	9 00	9 25
Slaughtered,	—	—	—
HOPS—first sort,	pound.	18	—
second,	—	16	—
refuse,	—	14	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	—	—	—
OATS,	—	44	45
PEAS, red eye,	bushel.	—	—
Black eye,	—	87	90
Lady,	—	—	—
PLASTER PARIS, in the stone,	ton.	3 50	—
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	90	92
Susquehanna,	—	—	92
TOBACCO, crop, common,	100 lbs	5 00	5 50
“ brown and red,	—	5 00	7 00
“ fine red,	—	7 00	9 00
“ wrappery, suitable	—	—	—
“ for segars,	—	5 00	10 00
“ yellow and red,	—	6 00	8 00
“ good yellow,	—	8 00	12 00
“ fine yellow,	—	12 00	16 00
Seconds, as in quality,	—	4 75	5 00
“ ground leaf,	—	5 00	8 00
Virginia,	—	7 00	14 00
Rappahannock,	—	—	—
Kentucky,	—	8 00	14 00
WHEAT, white,	bushel.	1 38	1 45
Red,	—	1 30	1 38
WHISKEY, 1st pf. in bbls. }	gallon.	38	—
“ in hhds. }	—	35½	—
“ wagon price,	—	34	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	2 25	—
To Wheeling,	—	3 00	—
WOOL, Prime & Saxon Fleeces,	pound.	55 to 63	30 32
Full Merino,	—	48	55 28 30
Three fourths Merino,	—	45	48 26 28
One half do.	—	40	45 24 26
Common & one fourth Meri.	—	36	40 22 24
Pulled,	—	38	40 23 24

GAMA GRASS ROOTS.

5000 Gama Grass roots will be received, and for sale about the 20th of March. By obtaining roots of this valuable grass, farmers will gain the advantage of two years over seed plantation.

March 1

ROBT. SINCLAIR.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	15	17
Shoulders,.....do.....	"	12	—
Middlings,.....do.....	"	13	14
Assorted, country,.....	"	13	13½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	22
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milk,.....	"	20 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	—	1 87
CHOP RYE,.....	"	—	1 87
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,.....	barrel.	8 00	—
No. 2,.....	"	6 75	—
H. rings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 2, 9 25;—No. 3.....	"	—	6 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....	paid
Branch at Baltimore,.....	do
Other Branches,.....	do
MARYLAND.	
Banks in Baltimore,.....	par
Hagerstown,.....	do
Frederick,.....	do
Westminster,.....	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton,.....	do
Salisbury,..... 5 per ct. dis.	do
Cumberland,.....	do
Millington,.....	do
DISTRICT.	
Washington,.....	do
Georgetown,.....	do
Alexandria,.....	do
PENNSYLVANIA.	
Philadelphia,.....	do
Chambersburg,.....	do
Gettysburg,.....	do
Pittsburg,.....	do
York,.....	do
Other Pennsylvania Bks. 1½a2	do
Delaware [under \$5].....	3a4
Do [over 5].....	2a3
Michigan Banks,.....	5a
Canadian do.....	5a

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours.

Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50a75 cents, or \$2 each. A liberal discount will be made when 1 doz. or more are taken.
ROBT. SINCLAIR, jr.
may 10 Light, near Pratt street whf.

CONTENTS OF THIS NUMBER.

Notice of the season, long continued drought, &c.—application of long manure—remarks on the late of the memorial of the Agricultural Convention of Virginia—notice of Buckinham Professor Low on the diseases of Sheep—compost manure—cure for the gapes in chickens—interesting communication on Beet root Sugar—policy and profit of small farms—culture of corn, management of grass seeds and product of mangel wurzel—a valuable new variety of spring wheat—great product of a small farm—Yankee mode of cultivating onions—sales of stock cattle—mode of destroying the cut worm—do. of the wire worm—preparation and management of seed corn—management of cream for butter—receipt for making cold soap—rule for planting fruit trees—advertisements, price currents, &c.

FARMERS' REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25, 1836.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving Bottoms \$30, with extra pair of knives.

11 " Permanent Bottom 28, do do do	\$33
13 " Permanent Bottom 43, do do do	31
13 " Revolving Bottom 45, do do do	48
15 " Revolving Bottom 50, do do do	50
20 " Large size fitted for horse-power 80, do do do	91

His variety of Ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality, and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass Seed of superior quality.

mh 22—e2m JONATHAN S. EASTMAN.

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted, Wove wire for screens, fans, cellar windows, &c., &c.

Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment extra castings for ploughs of all kinds, Thrashing machines, Horse powers, Mill work, window weights, &c can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffe oats.—Buckwheat, Millet, Potato Cuts, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

LIST OF FLOWER SEEDS,

FOR SALE BY R. SINCLAIR, Jr., Light, near Pratt street, Baltimore

A. signifies annual flowers.

TIME OF SOWING, LAST OF APRIL TO JUNE.

Ageratum, A.	Joacoea, P. W. & yellow, A
Amaranthus, A.	Job's Tears.
Auricula.	Jacob's Ladder.
Argemone, gr. flowering A.	Larkspur, mixed, dble. A.
Asters, mixed Dutch, A.	Lupinus, 4 sorts, A.
" China, A.	Mignonette, A.
Anemone, mixed, B.	Marygold, African mixed,
Bottle, Blue.	Ditto, French.
Balloon Vine, A.	Monk's Hood.
Broom Scotch, A.	Monkey Flower, mixed.
Balsamine.	Oleander.
Cacalia, scarlet, A.	Onethera, 5 fine sorts.
Cock-comb, A.	Pea, everlasting, P.
Clarkia, A.	Ditto, sweet, 6 sorts, A.
Chrysanthemum, mixed.	Poppy, mixed, A.
Candytuft, A.	Pinks, 6 fine sorts.
Cypress Vine, A.	" Carnation.
Catterpillars, A.	Purple Toped Clary.
Collinsea, gr. flowering, A.	Pensicaria, mixed, A.
Cobea, climbing.	Prince's Feather.
Columbine, Dble.	Primrose, purple.
Convolvulus.	Pentapetes, scarlet, A.
Cowslip.	Periwinkle, R. & white.
Canterbury Bells.	Polyanthus.
Coreopsis.	Rudbeckia, A.
Cardinal Flower, scarlet.	Snap Dragon, scarlet.
Cowslip.	Snails, A.
Devil in a Bush.	Sun Flower, A.
Euphorbia, variegated, A.	Sensitive, A.
Egg Plant, white.	Schizanthus, A.
Fox Glove, mixed.	Scarlet Synchris.
Forget me not, A.	Shot, Indian.
Gourd, 3 fine sorts, A.	Sultan, P. & white, A.
Gilia, blue.	Scabius-sweet.
Gillyflower, stock.	Swallow-wort.
ditto German, mixed.	Thistle, Scotch, A.
Honesty, or Satin Flower.	Touch-me-not, A.
Hollyhock.	Traveller's Joy.
Hedge Hogs, A.	Trailing Nalano.
Heart's Ease, A.	Virgin's Bower.
Hybiscus, gr. flowering.	Wall flower, bloody.
Honeysuckle, French, A.	Zinnia, A.
Ipomea, mixed, A.	

ALSO—20 fine new sorts of flowers.

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 5.

BALTIMORE, MD. JUNE 1, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 1, 1836.

We have been blessed at last with rain; for which, without affectation, we can truly say, we are most devoutly grateful. After an interval of five weeks without having any rain sufficient to moisten the earth an inch, the waters have fallen, and with them we hope they will bring those refreshing effects which were wont to make the fields smile and vegetation to assume its most healthful hue. Whether it be not too late to be extensively beneficial will depend upon the character of the approaching summer and fall. If these be fruitful of alternate sun and showers, then we may hope that the husbandman may yet witness remunerating harvests. Many we know have not as yet got in their corn crop, ourself of the number; for until within the last few days it would have been as useless to attempt to plough as to weather the ocean in a cream jug. For fifteen inches all moisture was extracted from the earth, and unless the soil, if we may be allowed the use of the term, had been as un-tenacious as the sands of Arabia, the work would have been killing to any team engaged in turning it up: and even after it had been turned up, they would have proved an impracticable mass for all profitable purposes of agriculture. Here is the very eve of May, and much of the work of the early part of April is still to be performed—some crops which should have been up and received their first ploughing, are not yet in the ground. This is a brief sketch of present farming prospects, and they are sombre enough; whether prudent foresight can make up in the after part of the season for what has been lost by the preceding portion is yet to be developed by time—that it may be, is our most fervent wish.

The Durham bull Emperor, together with his car and other fixtures, sold on Saturday last for \$350.

THE WHEAT CROP.

From Frederick and Washington counties in this State, and several counties in Pennsylvania, we learn with regret that the prospects for a wheat crop were never more inauspicious. A gentleman from Frederick county in this state, assured us a few days since, that he had heard of several fields in his county being ploughed up, and many others where more than seed was not expected to be realized.

The demand for raw silk, we learn from the Silk Culturist is so great that the products of foreign filatures are selling at \$6 50 cts. per pound. The advance in Europe is said to be unprecedented. Within a short time the price at Milan has advanced from 24 to 30 per cent.; the finer qualities to 40 per cent., and more advance is expected, as the manufacturers of Lyons, Zurich and Germany cannot procure stock in sufficient quantities to execute the orders they have already received from New York.

Sewing silk commands \$10 a pound, and is only to be had in small quantities at that.

The administrator of the late Dr. Hosack's estate writes us that the extensive herd of Durham cattle belonging to that distinguished and public spirited gentleman, went off well at auction on the 20th instant. We rejoice to learn the fact, as it evinces a good spirit as well as a just discrimination in the agricultural community.

The following extract from a letter received from the Rev. J. C. Breckenstein, of Pa., an esteemed correspondent and subscriber, will be read with deep concern. In advance of any remarks upon it, we tender to him our unfeigned thanks for the interest he has taken in procuring and forwarding us a subscriber. These attentions from one's patrons insensibly steal over the heart and infuse into it feelings which while they act as a cordial to the recipient of the favor granted, ensure to the donor the strongest of all virtuous obligations that the recollection of his kindness will inspire new life and energy into the object of it, and add to the measure of his desire and capacity to please. But enough of ourself,—let us now turn to the letter of our correspondent.

We regret to find by it, that grain looks bad; though we are by no means surprized at it, inas-

much as the long continued frost and snows of winter, cold cheerless spring, and unparalleled drought of May, had prepared our mind to hear disastrous accounts of the grain crops, generally; but did not calculate that the deficiency would amount to any thing like what our correspondent anticipates.

The fact mentioned by him, that the "limed lands look worst," is singular enough; for heretofore lands thus fortified have invariably withstood the winters best, that mineral serving to keep the grain warm and in good heart through the most intense weather, and to push its vegetation beyond the possibility of being spewed up by the breaking up of the frosts in the spring. The fact stated seems to us to be of immense importance; to be worthy of every consideration, and to suggest several inquiries. What is the particular way in which the Rye has been affected? What the quantity of lime used upon the lands per acre?—and whether the drought which has befallen other parts of the country has been felt there? Answers to these queries might furnish the means of accounting for the badness of the Rye crop, as also enable the judicious and observing farmer to obviate difficulties of a similar kind in future. Thus impressed with the importance of the subject, we would respectfully ask of our obliging correspondent to gratify us so far as to favor us with replies to our queries.

Extract from a letter to the editor of the Farmer & Gardener from the Rev. J. C. Breckenstein, dated

NAZARETH, MAY 17, 1836.

"Enclosed are five dollars as a subscription to the third volume of the Farmer & Gardener, of which you will please to send a copy directed to Rev. P. H. Goepp, Bethlehem, Northampton co., Pa. together with a receipt.

"Grain, particularly Rye, looks exceedingly bad in our parts, in consequence of the everlasting snow of last winter. Those fields that promised best last fall, present the worst aspect now—and will not yield the fourth part of a crop. Limed lands, there is no doubt about it, look worst. The *Barnitz pigs*, which I lately received of Mr. R. Sinclair, are coming on very well. I am much obliged to you for the Dahlia and Camelia Canestis seed, as well as the Silk Manual. I made lately an unsuccessful attempt to procure Mulberry seed in Philadelphia:—not a pound was to be had in all the city. The Silk business is becoming all the fashion. Successful

attempts in the culture of tobacco have been made about here of late years. Our tobaccoists having paid 9 a 10 cents per pound; \$100 have been realized in more than one instance from half an acre of land."

QUERIES RELATIVE TO THE CULTURE OF SILK.

To the Editor of the Silk Culturist:—

Allentown, N. J., Feb. 20th, 1836.

SIR—The manufacture of silk, and the cultivation of the mulberry in the United States, has become a subject of such great importance, that the quiet of our village has been roused by its influence, and several of us are now making arrangements to plant orchards in the spring.

The business is new, and though your excellent paper would seem to contain all the information required by those engaging in it, yet there are some apparent contradictions by your correspondents, upon matters which we, who rely upon what we read to guide us in the enterprise, are desirous to have reconciled. Hoping therefore that you will receive this as a sufficient apology for intruding upon your time and attention, and allow me to propose the following queries.

Some of your writers say the young trees should not be stripped sooner than five years from the time they were transplanted. Others, that worms in sufficient numbers may be fed from them the second year, that is, the next year after transplanting them, as I understand it, to defray expences, and that the third year's crop will furnish silk enough to give a nett profit of \$100 per acre.

1st. Which statement is the practical and true one?

2d. How old from the seed, should the plants be, before they may most profitably be transplanted?

3d. From an orchard planted in hedge form, the plants 2 1-2 feet distant, and the rows 12 feet apart, how many worms may be fed the second year, supposing the statement to be correct, which advises this early leafing?

4th. If I am not mistaken, M. D'Homergue in his book notes American cocoons, without their chrysales, at 8 grains, which would require 960 to the pound, whilst a writer in your paper gives from 260 to 300?

5th. You state \$3 per bushel, as the price of cocoons—how are they measured? three bushels may, without difficulty, be put in and on one.

6th. Can cocoons by any care be packed for market without indenting vast numbers of them, which is said to destroy their value?

7th. Before measuring and packing are they stripped of the floss, or are they sold with that attached?

8th. What amount of silk can an ordinary reeler wind from the cocoons in a day?

If it will not tax your goodness too far, to answer, in the next number of the Culturist, the above queries, you will, by so doing, greatly oblige

Your humble servant,

WILLIAM IMLAY.

P. S. From the inducements held forth in your paper, I have purchased 7000 trees, to be planted in the way stated in the third query.

Three other gentlemen in our village, are preparing to set out an equal number.

ANSWERS BY THE EDITOR.

1st. It is the opinion of the most experienced culturists, that trees two years old, may be stripped of their foliage without injury, provided the leaves on the extremities of the branches are suffered to remain. It is however recommended by some, to let the trees remain one year after the first picking, in order that they may recover from the loss of their foliage. Trees of two and three years old, yield but little foliage, and consequently, not much profit must be expected from them. It is, however, supposed that potatoes, beans, or other low vegetables may be raised among them, in sufficient quantities to defray the expense of their cultivation and give a small profit.

We have had no experience in feeding from trees of this description, but a gentleman of this country informs us, that he fed, the last season, 50,000 worms, on the foliage of 50,000 white mulberry trees, on their third year's growth, and made at least 10 pounds of silk. The method he pursued, was by pruning the trees, in such a manner as would best promote their growth and form, and feeding the worms on the boughs cut off. These, with such other foliage as he could gather from the remaining branches, furnished him with food sufficient for his family of 50,000 worms. By this experiment it will be seen, that a tree on its third year's growth, sustained a worm, and enabled it to make its cocoon. The Chinese mulberry at 2 and 3 years old, will yield an abundance of foliage, and much more than \$100 nett profit may be made from an acre thickly set, and highly cultivated.

2d. Trees should always remain in the seed beds, or nurseries, until they are 2 or 3 years old, if they are to be transported any considerable distance for transplantation. The last spring we transplanted 10,000 seedlings, about half of which died. They were, however, transported about 20 miles, and were some time out of the ground. When trees are to be merely transplanted from the nursery, to the plantation, it is considered by many, advisable to remove them at one year old. They will put out more branches, require more pruning, and consequently, furnish more food for the worm, at 2 and 3 years old.

3d. It is impossible to answer this inquiry with sufficient precision for any practical purpose.—Much depends on soil, cultivation, pruning, &c.

4th. The weight of cocoons, and the number in a pound, varies according to their quality, the time when they are weighed, &c. We should think would average from 250 to 300, to the lb. immediately after the worm is destroyed, and before they are thoroughly cured. As they become dry, they lose their weight, and when perfectly so, a pound, of some qualities, may require the number stated by M. D'Homergue.

5th. Cocoons are measured by putting them gently into the measure and rounding it. There is a difficulty in ascertaining their actual measure or weight, as they vary materially, according to the manner of measuring, or the time of

weighing. The most equitable method of coming at their value, is to weigh the silk after it is reeled, and for this purpose, among others, should the grower acquire the art of reeling. Until this is done, the better way is to carry the cocoons to the filature and have them reeled by a skilful reeler. The silk can then be weighed, and the expense of reeling deducted—the number in a bushel varies according to their size, ranging from 2,500 to 3,000.

6th. There is no difficulty or danger in packing and transporting cocoons, provided the directions for preserving and transporting them, given in former numbers, are duly regarded. See pp. 44, 59.

7th. The floss ought not to be taken from the cocoons if they are to be sent to market. It prevents their becoming indented, which materially injures them. Some manufacturers prefer flossed cocoons, on account of the measure, but what they lose in measure is more than made up to them in their quality.

8th. The quantity of silk which can be reeled in a day, depends upon the quality of the cocoons, the reel used, and the experience and dexterity of the reeler. Some reelers will reel a pound; but the average among ordinary reelers, would not much exceed half that quantity.

[From the New-York Farmer.]

SILK.

Mr. Saml. Whitmarsh, of Northampton, who went out the last autumn with a view to inspect the silk manufactures of France and Italy, and obtain what information he could respecting the raising and management of the worms, and the preparation of the raw material, has just returned, after an entirely successful tour. We are promised some full details of the result of his inquiries at a future time. In the meanwhile, we lay before our readers a few incidental facts, which will be received with interest.

He says decidedly, that every thing which he has seen and learnt, favors the cultivation of silk in this country; that it may ultimately become one of the most important interests of the country; and will satisfy all reasonable expectations. As it respects climate and labor, two points in regard to which there has been much scepticism, we have a decided advantage.

As it respects labor, though wages and living are extremely low abroad, and the peasantry engaged in the raising of silk live in the most frugal and meanest manner, yet so much more is accomplished by a laborer among us than among them, that the difference in the expense finds more than an equivalent in the superior amount performed. Every thing done abroad in this way, is done in the most awkward and slovenly manner; the silk, throughout Europe, is cultivated in a small way, in cottages by humble means; and instances are not unfrequent, in which the peasantry travel 5 and 6 miles daily to obtain a supply of leaves for their worms.

The silk raised on the continent, is of a far inferior quality to that raised in this country, 8lb of cocoons in this country, yielding a pound of silk, whereas in Europe, 12 pounds are required. This, he thinks, is to be attributed to our climate; the colder the climate, as long as feed can be

found for the worms, or to speak in more classic terms, for the operatives, the better the silk. The American silk therefore, is of a superior quality to the European or the Chinese.

Mr. Whitmarsh has brought with him several kinds of mulberry, to which he designs to give a fair trial. The white mulberry is not used, excepting as furnishing stocks for grafting. The mulberry, which he thinks is to be preferred to all others, is one known as *Muries de Chine*, or Chinese mulberry; but not the *Morus Multicaulis*. This plant is not yet introduced into France or England, but has been long enough in Italy to test its remarkable value. Its foliage, though not so large as that of the *Morus Multicaulis*, is yet much thicker and heavier; and it is comparatively proof against the coldest climate.

Of this mulberry he has brought a large quantity of the seed, which he warrants as genuine, and of last year's growth; and of which, he has deposited some for sale, at the store of Mr. St. John, No. 118 Broadway, at \$5 a paper, containing about 4000 seeds. Much of the Chinese mulberry, *Morus Multicaulis*, brought to this country, is heated in ovens by the Chinese, so as to destroy its vitality; and this is the general occasion of its failure to vegetate. We shall wait with interest for further communications from Mr. Whitmarsh, on a subject so important to the agricultural community, and to the whole country; and are happy that the enterprise has been undertaken by so exact and intelligent an observer; and one, too, who has so deep a personal interest in the concern.

H. C.

April 26, 1836.

Silk in Vermont.—Mr. Asa Fletcher, of Orwell, says, in the *Silk Culturist*, that he finds no more difficulty in raising the white mulberry, than in raising apple trees. He fed worms last year with perfect success, and with no knowledge respecting their management, except what he gained from the newspapers. A gentleman in Shoreham fed about 100,000 worms last year. It is easy for farmers to try the experiment. An ounce of seed, or a few young trees of the white mulberry will cost but little; and the procuring of them certainly may lead to valuable results.

Rev. Dr. Wood, of Bascawen, N. H.—a town certainly, not more favorable to the business than Windsor, has made from a single tree, for 25 yrs. in succession, a large supply of silk for use in his family, besides several dollars worth annually for sale. His worms have not deteriorated; and he is satisfied from this long and full experiment, that the business may be made useful and profitable in this climate.

RECOVERING FROSTED PLANTS.

It is well known that the injury caused to plants by early spring frosts, is not owing so much to the direct action of the cold, as to the sudden application of warmth afterwards. London nursery-men have availed themselves of the knowledge of this fact in recovering plants affected by frost during the night. Their practice is simply to sprinkle them copiously with cold water before sunrise. This produces the same effect as the application of cold water to a frozen limb—abstracting the frost so gradually as to produce no injury to the affected parts.

ORCHARD GRASS.

Next to the clovers red and white, herd's grass and timothy, the grass that appears best to repay cultivation in the northern states, is the orchard grass of the north, or cocksfoot grass, as it is sometimes called in the middle states. Its valuable qualities consist in its early growth, the rapidity with which it springs up when fed or cut down, the quantity it produces on light soils, and the covering it affords soils which are apt to suffer after mowing from exposure to the sun.—When allowed to become old and dry, it does not appear to make as good hay, or be as palatable to horses or other stock, as the first mentioned grasses; indeed, to derive the full benefit of orchard grass, frequent mowing, or constant cropping, is requisite. For a second mowing, or crop of rowan, the orchard grass is unequalled.

Orchard grass is excellent for sowing with clover, on all soils, but especially on dry ones, as when mown with the other, it springs up so rapidly as to preserve the clover roots from drying up as they frequently do, and thus prevents the retardation in growth, or death of the plants, that so often ensues. Judge Peters of Pennsylvania, one of the first agriculturists in this country, says, "that on uplands it is preferable to timothy, and that when sown with clover, it endures in uninterrupted vigor and usefulness, when the latter in dry seasons is burned or shriveled."—W. H. Johnson, of the same state, and a practical farmer, says—"As a pasture grass it is without a rival. Unlike timothy, or herd, or clover, when cut its growth is one continued effort of vegetation. The new shoot springs immediately out of the blade, and with such a rapidity that I have known in a rich soil, during eleven or twelve days, an average growth of more than an inch per day. Of all the grasses with which I am acquainted, it is the first to grow in the spring, and continues to flourish the last in the fall. It is soft, sweet and nutritious, and when growing with other grasses, it is observed that stock most generally give it a decided preference.

We have for a number of years been in the habit of cultivating this grass, and can cheerfully add our testimony to the above statement of its good qualities, and would further add, that, as its name imports, it is superior to any other grass for orchards, groves, or fields containing great number of shade trees, as under such it flourishes nearly as well as in the open air. The only serious objections we have ever known made to its use were, that by being sown with or without clover, it would form an obstacle to the usual rotation of crops, adopted in our wheat growing sections, and that when sown on our lands it too frequently grew in turfs, rather than in a thick closesward. That it can ever be profitably introduced on lands on which it is intended to raise a crop of wheat as often as once in three years we do not imagine; in such cases clover and nothing but clover should be used, as on this the fertilizing powers of manure and plaster can be most profitably exerted. But there is on almost every farm fields that cannot and ought not to be subjected to the rotation system, and here the orchard grass may be invaluable. On farms, too, intended for grazing, the orchard grass will prove a most important auxiliary, and one

which we think will be more valued and appreciated the more it is used and cultivated. The rapidity with which it throws out new leaves after cutting is almost incredible, and should be witnessed by all who would understand the vegetative powers of plants. As to its growing in tufts: this is true, as it is generally sown, but the difficulty we think lies in not having a sufficient quantity of seed put on an acre. If put on thick enough, it grows no more in tufts than the other grasses, and spreads in the same manner. When thinly sown with timothy or clover, it grows so much more rapidly after cutting than the others, that a field necessarily assumes a tufted appearance, but this produces no injury whatever, and is indeed beneficial to the grasses with which it is associated.

Orchard grass seed should be cut rather early, and carefully dried, as otherwise it is apt to fall out and be lost. Where it is intended to be mown, the seed when ripe may be cut clean with a cradle, and thus secured, and the bottom then cut with a scythe, as usually performed. The seed is quite light, not often weighing more than 14 or 15 pounds to the bushel; and should be sown in still weather, that the action of the winds in unequally scattering it may be prevented. It has been ascertained that for seed lots, two bushels should be sowed to the acre; and for the sythe or for pasture, the mixture should be one bushel of orchard grass and one of timothy seed, sown either in the spring or fall, and over which should be scattered four quarts of clover seed in the month of March.

G.

INDIAN CORN.

The proper soils for this kind of grain, are the sandy, sandy loam, gravelly loam, and rich red, or dark colored earths, which have but little clay in them. A clover sod, well turned over, after having been covered with long manure, makes the best preparation for this crop. It will be of service to go over the ground with a roller, and harrow lengthwise of the furrow, just before planting. All seeds flourish best when put into fresh stirred mould. The time of planting should vary according to the season and part of the country. Dr. Deane observed that the right time of planting may be from the first to the third week in May; or a little sooner or later, according to the dryness of the soil, and the forwardness of the spring. The farmers have a rule in this case, said to be borrowed from the Indians, which is, to plant corn when the leaves of the white oak begin to appear. But if much time is likely to be consumed in planting, it will be necessary to begin in the driest part of the field a little earlier than this rule directs. Judge Buel observed, "My rule has been to plant when the apple is bursting its blossom buds, which has generally been between the 12th and twentieth of May."

Shell the seed gently by hand that it may not be torn or bruised; and if any corns appear with black eyes, let them be rejected. The preparation of seed for planting, has been different by different cultivators; we will give several modes of preparing seed-corn, and the tiller will take his choice. Judge Buel observed, "The enemies to be combatted are the wire worm, brown grub, birds and squirrels. Of these, the first and two

last prey upon the kernels, and against these, tar offers a complete protection. I soak my seed 12 to 20 hours in *hot* water, in which is dissolved a few ounces of crude saltpetre, and then add (say to 8 quarts of seed) half a pint of tar, previously warmed, and diluted with a quart of warm water. The mass is well stirred, the corn taken out, and as much plaster added as will adhere to the grain. This impregnates, and partially coats the seed with tar. The experience of years will warrant me in confidently recommending this as a protection for the seed."

A writer for *Goodsell's Genesee Farmer*, with the signature of W. T. W., recommends wetting seed corn with soft soap, and rolling it in plaster, and gives the details of an experiment which tested the utility of the practice.

A solution of copperas has been recommended as forming a good preparation for seed corn. Mr. J. Ellsworth, of Connecticut, in a communication published in the *N. E. Farmer*, vol. x, p. 331, stated as follows:

"Last year I soaked our seed corn in very strong copperas water, as near as I can recollect from 24 to 36 hours; every kernel was made as black as charcoal; the man who planted the corn called me a fool, and said it would never vegetate. But every hill planted came up well, and during its growth excited the remarks of all who saw it, as being the most even field of corn they ever saw. Not one hill in the whole 7 acres was injured by worms; and we had often in previous years been compelled to replant several times, when it had been cut down by the worms. We had over 60 bushels to the acre."

With regard to the sort of corn to be planted, there is much to choose. The Hon. Sam'l. Lathrop, in an article published in the *N. E. Farmer*, vol. xiii., p. 185, states, that he had procured a sort of corn of Judge Buel, which was about a fortnight earlier than that commonly used, which, he observes, "I think will prove a valuable species to those who wish to sow their land with wheat. In ordinary seasons, it will have become sufficiently ripe for harvest by the middle of September. It is a species of the twelve-rowed corn, but the growth of the stalk is very small, compared with the twelve-rowed corn which I have been accustomed to plant—not exceeding one half of the weight, of course the exhaustion required to sustain an equal number of stalks is much less. This species of corn will bear planting much thicker than any other kind of field corn which I have ever cultivated. I this year [1834] planted the hills 3 feet apart in both directions, intending to have 3 stalks in each hill. But it may be planted 3 feet by two and a half, and then the ground will not be more shaded than it is with the corn generally raised here, when planted in squares of three and a half feet.

The ears set low on the stalk, grow of a good size, and the grain is heavy. I think it is as valuable for use as any other kind of this grain; and from the fact that it will bear planting so thick, I believe that I can secure a larger product than from any other that I have ever tried. But the circumstance that gives it its chief excellence in my estimation, arises from the fact that I can gather my corn in season for the sowing of wheat. In the most unfavorable season, the wheat may be

sown in September, and in very favorable seasons, early in that month.

Capt. Coffin, of Newburyport, in the *N. E. Farmer*, vol. xiii., p. 282, gives an account of the culture of an early sort of corn, received from the Hon. O. Fiske, of Worcester. Capt. Coffin observed, that "Early in May, the corn arrived at hand. On the 14th of the same month, I had about half a peck of it, after being soaked 2 or 3 days in a saturated solution of copperas, planted on less than half an acre of inverted sward, broken up for the purpose. It was manured in the holes, was hoed twice with very little hilling in either operation. It was in spindle and ear the 1st of July, fit for boiling about the 15th to the 20th of the same month, and was harvested the middle of September; and immediately husked out, measuring 45 bushels in the ear, being more than 90 bushels to the acre. The stalk is very small and ran seldom higher than 4 to 5 feet. The ear is small and not long, but the kernel is set very compactly on the cob; is good for boiling green, excellent in bread, and very useful to the farmer on account of its early arrival at maturity; and would have been much more productive had it been planted $2\frac{1}{2}$ by 3 feet distant, instead of three and a half by four, and some even more distant.

"I also made an experiment the last year with another kind, (the spindle corn presented me by a friend,) which has a small but exceedingly long cob, running from 9 to over 15 inches in length, is eight-rowed, of a fine bright yellow color, very productive and excellent for bread, and was harvested ripe before the frost of last season [1834], and the last season it is well known was not one of the most favourable seasons for the growth of that article."

One of the most important improvements in the culture of corn consists in planting from 4 to 6 times the usual quantity of seed; and, at the first hoeing, pulling up all but the proper number of plants, leaving to form the crop none but the most healthy. The additional quantity of seed will cost but little, and the labor of pulling up all but 3 or 4 of the strongest plants is much more than repaid by the increased product. The seed should be covered with clear mould, and not too deep.

A handful of unleached ashes, or a mixture of about equal parts of ashes and plaster put on each hill, immediately after planting, will be useful, not only to nourish and stimulate the young plants, but as a preservative against the cut-worm.

An excellent article on the culture of Indian corn, by Capt. Chandler, was published in the *N. E. Farmer*, vol. xiii., p. 291. This should be read with care by every cultivator before he commences the raising of his corn crop.—*N. E. Farmer*.

Potatoes for Swine.—Select a warm early piece of ground near your hog pen, of about a quarter of an acre, more or less, and having made it rich with hog or horse manure, plant it with early potatoes, which will probably answer to begin to dig in July, these will, especially if steamed or boiled, be found useful in bringing forward fattening hogs before Indian corn is ripe.

[From the New York Cultivator.]

CORN, CARROT, AND RUTA BAGA CROPS.

Mr. BUEL.—Dear Sir—Being unwilling to hide my light under a bushel, however humble it may be, when thousands of others are shining so bright around me, illuminating my path and rendering my labors more easy, more productive and more pleasant, I have taken the liberty of forwarding for your disposal, an account of my past season's agricultural labors, so far as they are connected with the cultivation of the corn, the carrot, and the ruta бага crops.

Under the influence of a strong disposition to innovate upon old theories and practices, and to mark out a new and untrodden path, where there appears to be room for improvement; with no reverence for usages whose merits are founded upon mere antiquity, I have commenced the agricultural life, prepared to think and act for myself. With such a disposition, and knowing, as every man of reflection must know, that there is a great degree of ignorance on agricultural science in our country, you may well imagine that I see many things among our hard working and deserving farmers, that most emphatically require a thorough and radical change—that there is a vast amount of labor, of hard, back-aching labor, which from improper application, produces not its suitable reward—and there are many acres of fine productive soil, which by improper management are not made to yield a return of simple interest upon the cost.

I will acquaint you with my experiment upon the cultivation of a field of corn, of 3 and one third acres. The land was of the kind here denominated the oak timbered land; a strong, loam soil, with a clay bottom. It had been 3 years down after wheat, without seeding, and had been previously worked pretty close. In May I carted on about 30 loads of rotted manure upon 2 acres of the poorest part of the land, and the rest was without manure. I then ploughed it very carefully, being particular to turn the sward *all* under. I then dragged it twice with the harrow across the furrows, and then with a hand marker having 7 trails, I marked out for the rows, 3 feet 6 inches one way, by 1 foot 9 inches the other. The ground had by this time owing to the drought become very dry. It was now the 19th of May; I had intended to have planted by the 12th, by which I should have avoided the bad effects of the drought.

I soaked my corn, and rolled it in plaster. It was of the 12 rowed kind; I put from 5 to 8 kernels in a hill and covered with moist earth. The corn came up unevenly, some not till 3 or 4 weeks after planting. On the 2nd of June, I put on 35 bushels per acre of leached ashes. On the 11th, ploughed out the corn with the cultivator, and hoed, throwing a little fresh earth around each hill, first thinning it out of the best spears in each hill. It came forward very fast. On the 23d, went through the second time with the cultivator, but owing to a press of other business, did not hoe it. July 2nd, used the cultivator the third time, and hoed the second, throwing little fresh earth in each hill. This was all the labor bestowed in the tillage of the corn;

it now presented a most healthy and thriving appearance, and almost completely shaded the ground. At this period my neighbours began to prophecy the result of my experiment, and with no very flattering terms.—Without a single exception they told me I would have but little corn, and that that little would be poor, as it grew too thick, and was too much shaded. With this array of prophetic judgment, from old and young against me, I almost began to doubt the wisdom of my experiment, and to repent having wandered from the footsteps of my fathers. Some advised me to cut out every other row, but as I had begun the experiment, I thought it proper to carry it through. The corn grew rapidly, grew strong, and maintained its healthy colour. On the 3d of October, after an unusually cold and unfavourable season, with frost every month, particularly on the 3d of August, which materially injured the corn crop, and one on the 16th September, which put a stop to its growth, I cut up my corn by the roots and stouted it off the field, and left it till the 10th of November, when I completed the husking, and stored into my grainery 322 bushels of ears of good corn: being at the rate of about 50 bushels of corn to the acre. Besides the corn, I had double the usual quantity of stalks, which in this season of scarcity I have found very valuable. I will now inform you of the carrot crop.

Early in the spring I carted 8 loads of manure on to one eighth of an acre of tolerable rich bottom land, deep and loose, and ploughed it under; and on the 12th of May put the seed in the ground by hand, in drills 14 inches apart. The seed did not come up well, there being frequent vacancies of from one to ten feet in length. In the course of the season the carrots were hoed twice and wed three times by hand. On the 29th October, I harvested the crop, which turned out 210 bushels of carrots, at the rate of 1680 bushels per acre. The whole cost of tillaging and harvesting was \$14, including interest on land at \$50 per acre; the value of crop at two shillings per bushel, \$52 50 nett gain from one eighth of an acre. I have no doubt that had the seed come up uniformly over the field, I should have had 250 bushels, which would have been 2000 bushels per acre.

Adjoining the carrot field, and of the same kind of land, and prepared in the same way, I had one tenth of an acre devoted to the culture of the ruta бага. The ground was made perfectly level, and the 25th June the seed was sown in drills from 18 to 20 inches apart and came up well, as the weather was very favorable. On the first hoeing they were thinned to 12 inches apart. They were hoed but twice; and on the 15th November I harvested 122 bushels; being at the rate of 1,220 bushels per acre. Value of crop at 19 cents per bushel, \$23.18; tillage and harvesting, \$2.20, leaving a balance of \$20.98 nett gain from one tenth of an acre.

With regard to the carrots, they were not thinned, but left to grow as they came from the seed; but the looseness of the soil allowed them to spread, and they grew to a very great size; some measuring 17½ inches in circumference, by 30 inches in length, weighing 7½ lbs. The largest turnip measured 25 inches in circumference,

and weighed 11lbs; very few weighing less than 5 and 6.

I would respectfully solicit the attention of your correspondent, Thos. Midford, to the account of the ruta бага culture, which he considers the least enlightened and the least productive.

Respectfully yours,
EDWARD MILLER.

[From the Maine Farmer.]

ON WATERING LANDS.

Irrigation or watering lands, is a subject of vast importance to the farmer, but so little attention has been paid to the subject that its utility has never been tested, at least in this part of the State. A brook or small stream may sometimes be turned from its ordinary channel and be made to water acres of mowing land, at a trifling expense, and increasing the crop of grass in some instances more than four fold.

A Water Level is an instrument that may be used in this business to much advantage. One of the following simple construction will answer every purpose. Fill a clear glass phial half full of water and fasten it horizontally on a piece of board—sighting by the surface of the water in the phial at different points, as it may be ascertained with the utmost facility at what places the artificial stream may be carried and still preserve a sufficient descent to carry off the water.

A little experience in this matter will show that water may be carried round declivities and gently sloping lands at such heights as to the casual observer it would be deemed utterly impossible. The wash of roads may be turned into mowing lands with singular advantage. I have known farmers in Massachusetts to build and maintain at considerable expense, culverts, and bridges across roads, for the sole purpose of turning the wash of the roads, in spring time and during heavy rains, on their mowing grounds; and lands that receive the wash have produced a crop of grass highly profitable, and in many instances two crops the same season, while the wash is continually adding richness to the soil without the aid of any other kind of dressing.

A writer in speaking of watering land, says, 'In the hilly country of Vermont, I owned a farm, over which I carried the water of a small stream in artificial channels, more than a mile. Lands that did not yield half a ton of hay to the acre, were thus made to yield two tons; by which means I added to my crop 6 or 8 tons.'

Now hundreds of instances of this kind might be adduced to prove the immense benefit that is to be derived by a judicious mode of irrigation.

[From the Genesee Farmer.]

HARVESTING OF CORN—BY W. G.

Mr. Editor—Some of my opinions respecting the best and most profitable mode of harvesting a crop of corn, were considerably shaken by the communications which appeared in the last volume of the Farmer on this subject, from men whose testimony is of the greatest weight; my impression has been, that to secure the greatest quantity of good sound corn, it was best, as soon

as the tops had become somewhat dry, and the ears hard glazed, to top the corn, and let the ears stand on the stalks till the time of gathering, and such, of course, has generally been my practice. I did this, because I believed that after the top had performed its office of fecundating the plant, it became in a manner useless; and that stalks dry, and leaves withered, however excellent as a fodder for cattle, could do little or nothing towards elaborating the juices necessary for the perfection of the ears. It besides appeared to me that the fresh and green husks, which farmers know retain their power of elaborating sap much longer in general than the leaves, were designed by nature to supply the ears with food; and though opposed to the mutilation of plants generally, as the means of increasing their productiveness, topping corn I did not consider as an operation of that kind. When such men, however, as Buel and Colman, maintain a different theory, and backed by experiment, contend that topping corn is hurtful, it certainly becomes minor agriculturists to pause, and test the question thoroughly. These farmers, and others assert, that topping corn is decidedly injurious—that it materially lessens the actual weight of the crop—and, therefore, that allowing the stalk to remain whole till the time of gathering, or else cutting it up close to the bottom, is the preferable mode of harvesting.

These experiments, though so far as they were detailed, they appeared to be very fairly conducted, were not altogether satisfactory to me, as they did not go far enough. Every farmer is sensible, that corn topped becomes more thoroughly dried by exposure to the direct rays of the sun, and must therefore be expected to weigh less at the time of gathering than corn shaded by the tops, or cut up by the bottom and standing in sacks till husked. My corn the past year had been cut up by the bottom, with the exception of a few pieces of rows, before the thought of making any experiments myself on the subject occurred. In order to see, however, whether my ideas of the different rate of shrinkage between topped corn, and that cut up, were correct, I carefully weighed a basket full of ears of each kind, at the time of gathering, and placing them in a dry chamber, where they lay undisturbed, let them remain until the middle of January, when I had both kinds carefully shelled and weighed. By this experiment, it appeared that the corn cut up by the bottom, shrunk three lbs. in a bushel more than the topped; but this did not mark the extent of the difference, as at the time of shelling, the former was easily distinguished from the latter, by its comparative dampness, though both parcels were bright, fine corn. I cannot, therefore, consider the question as entirely put at rest by any experiments that have yet been made, but as the matter is certainly one of importance, I hope that another season will not pass without its being done effectually. In order to do this, all the specimens must not only be weighed and measured at the time of gathering, and at the time of shelling, but be suffered to remain in some position favorable to the evaporation of all dampness until the corn is complete and thoroughly dried, when a careful comparison of the whole would show the result.

NATURAL HISTORY OF THE HORSE BEE.

As this is a season in which many horses die with the Bots, we have been requested to publish something on the subject. At the same time a pamphlet has been put into our hands. The article is too long for insertion entire.

The horse bee is the most contemptible of all insects—"They for a season inhabit the stomach, prey upon it, destroy its texture, and introduce convulsions and death." They appear from the 20th of June until September, or until the cold evenings commence. They are two kinds—the larger kind generally cast their eggs on the anterior legs, but never under the throat—the smaller always under the throat. It has been supposed that these eggs hatch in the horses' stomach. Not so; the process of hatching is nearly completed before the horse, feeling uneasy, bites the limbs on which they are hatching, and so they pass into his stomach. They are provided with two sharp hooks by which they secure a hold, and there remain until they arrive at full growth, three-fourths of an inch in length. Their work is effected, most generally, in February, March or April.

General Symptoms of Bots in Horses.

Sometimes horses which are hard worked discover no apparent symptoms until death. In young horses the symptoms are generally better ascertained. In general the horse loses flesh, coughs, eats but sparingly, bites his sides, and sometimes with violence. These symptoms continue and increase for a longer or shorter time, according to the violence of the case, and then a discharge from the nose commonly takes place; and at length stiffness of the legs and neck, staggering, laborious breathing, convulsions and death.

Appearance on Dissection.

Bots in abundance collected near the passages into and out of the stomach, and of various sizes, according to the time of their residence there.

The texture of the stomach penetrated and greatly injured. The internal coat of the stomach appears thickened and preternaturally hard on those parts where the greatest injury is done. In four out of five dissections the lungs were found greatly inflamed; some parts in a state of suppuration, others in a putrescent state. The one whose lungs were not marked with inflammation, was a young horse of two years old, whose lungs had never been injured by hardships.

Query.—Why this inflammation, &c. on the lungs?

The irritation arising by the action of bots in the stomach, may produce a general inflammatory disposition in the system; but as the lungs of horses, by hard usage, are more predisposed to inflammation and its consequences than any other given part of the body, the inflammation fixes there, and in many (if not most) instances seems to be the immediate cause of death.

Experiments to remove Bots from the Stomach.

Aloes, rum, mercury, jalap, brine, linseed oil, pepper, tincture of tobacco, decoction of pink root, &c. are all ineffectual. This will not appear strange when we consider how tenacious they are of life. Nothing is more injurious than rum, and other heating things, to the irritable

state of the stomach, whose texture is nearly perforated in numerous places.

Almost every farmer in Massachusetts has some specific, and frequently one of the above named, or those of less consequence. A farmer's horse sickens with a cold or a pain in the stomach from hard travelling perhaps; he asks his neighbor. What is the matter? He answers, The bots.—What shall I do? Give him rum. The rum is given and the horse recovers immediately. Well, what is next? Why rum has cured the bots. In like manner other things obtain credit for killing bots.

Experiments for making Bots let go their hold without the body.

The stomach laid open, the following things were applied to no effect, but in some instances they appeared to hang the stronger—rum, brine, lime, fish oil, British oil, burnt alum, corrosive sublimate, spirits of turpentine, tincture of aloes, decoction of tobacco, pepper, volatile spirit, elixir camphor, weak elixir vitriol, &c. &c. Actual fire would cause them to let go, although not in all cases, sometimes certain individuals would cling the faster, and die, like a good soldier, at his post, before they would relinquish their hold. They will live hours after they are considerably scorched by a candle. Strong vitriolic acid would immediately cause them to let go their hold. This acid, joined with oil and water, (equal parts) would answer the purpose, though not so effectually as the acid by itself. This acid was found to be more effectual than aqua fortis.

Experiments to destroy Bots without the body.

The following experiments were made at different times, and on bots three quarters grown or more:

	H. min.	
Rum	25	others not so long
Decoction tobacco	11	
Strong elixir vitriol	2 18	
Volatile spirits	55	no effect
Spirits turpentine	45	
Essential oil of mint	2 5	
Decoction pink root	10	
Fish oil	49	
Linseed oil	10	
Solution of salts	2	
Elixir proprietatis	10	
Beef brine	10	
Solution of indigo	10	
Elixir camphor	10	

The experiments which had no effect were discontinued at the expiration of the time specified. Bots cannot endure the cold so intense as to freeze.

Preventive Means.

Scrape off the eggs, when laid on the horse, every eight or ten days. A much longer interval will answer the purpose, even once in twenty days; but there is a greater certainty of destroying the whole in short intervals, as some may be overlooked at one time and not at another. This practice must be continued through the season of them, and may be performed with ease with a sharp knife. The eggs should not be scraped off where the horse can feed, as in that case the young bots might be taken in. It is difficult to remove those eggs laid under the throat with a

knife, but they may be destroyed with a hot iron, made for that purpose.

Palliative Means.

From what has been said, it appears exceedingly difficult to remove bots from the stomach: they are covered as with a coat of mail, and seem to be proof against any thing that can be thrown into the stomach with safety.

As no certain method has been found effectual in removing them from the stomach, the whole indication seems to be to remove the irritation and inflammation; and this is to be done by blood-letting and a free use of mild oils. Blood-letting has a tendency to remove the inflammatory disposition, and oils lubricate the fibres of the stomach, and tend to obviate the effects of the stimulus which produces inflammation and death. However, all this ought to be done in the early stages, and even then the event is very uncertain.

In most instances it appears that the immediate cause of death was the local affection in the lungs; and in those instances where the local affection of the lungs did not exist, it appears that the irritation occasioned by the bots introduced convulsions ending in death.

When the lungs are much affected death is almost certain; but in those instances where the lungs are not affected, there is considerable probability, that by blood-letting and a free use of oils, the effects of these insects may be warded off for some time, and perhaps long enough for them to come to maturity, at which time they cease to act.—*Eastern paper.*

LOOK TO YOUR PORK.—Experience has shown that pork packed when frozen is in general not as sweet and good as that packed when unfrozen, and that extraordinary measures are sometimes required to preserve it in a decent state. Those who packed pork in this state, either for sale, or for family use, will do well to examine it soon, if they have not already done so; and if they find it in any degree defective, immediately remedy it, by turning off the brine, boiling and scumming it, and adding to it before returning it, a sufficient quantity of salt to strike through the pork at once. We have within a few days noticed a quantity of pork somewhat injured in quality by being packed in this state; and there is undoubtedly much in the country that would be benefitted by timely attention.

ON BURNING SMOKE HOUSES.—By Silas Cornell.

A lover of good Bacon, in number ten of the Genesee Farmer, wishes to know the best method of smoking. He has well suspected that his brick smoke-house is too close, and his experiments in making holes in the door were an aim at the right thing, but the ventilation was by no means sufficient. A brick smoke-house is not well adapted to the purpose; many persons have gone to an extra expense to erect such a building, which finally does not answer the purpose. Mine is formed with a cellar 2 feet deep, walled with rough stones, and the earth raised against the outside to the top of the wall. On this stands a building 6 feet square, boarded in the manner of a barn—boards set upright, but not closely jointed or battened. This affords a

bout the proper ventilation—the meat dries, and smokes in fine order. The best article for producing smoke is sound maple wood well seasoned; with this a slow and constant fire may be maintained, besides giving the meat a better flavor than most other wood.—SILAS CORNELL.

The manufacture of sugar from the beet root in France, threatens, in consequence of certain improvements in the process, to drive the West India sugar from the market. To prevent this, the French Minister of Finance, M. D'Argout laid a bill before the Chamber of deputies on the 5th of April, the object of which was to levy a tax upon all sugar manufactured in France. He observed that the growth of this manufacture had been prodigious since 1828, that it had injured the finance of the kingdom, and threatens the naval trade of the country, and the very existence of the colonies. In 1828 there were but 58 manufactories in operation, and 31 were building, but since that period the produce of the manufacture had increased 20 fold, and the colonial sugar could no longer stand in competition with it. In 1835 there were 400 manufactories either in activity or erecting. The amount manufactured from the beet root in 1828 was less than five million and a half kilogrammes, the amount manufactured in 1835, was thirty-five millions. In 1828 only one fifth of the whole sugar consumed in France was manufactured in the kingdom, and the damage to the treasury was but two million of francs; in 1835 the damage was more than 17 millions. The Minister concluded by proposing a tax of fifteen francs upon every 200 pounds of sugar manufactured from the beet root or other substances, after the 1st of August next.

The crops in our parish at present exhibit a prospect fairer perhaps than has been for a number of years heretofore. The stubble cane, or "ratoon," which for several seasons past has hardly been worth cultivating, bids fair to rival the plant if not surpass it.

Can any planter assign a just reason for the mode recently introduced among us for chopping off the tops of the old stubble in the spring, and of what utility it is to the process of vegetation? If there be an advantage in this method we think that it should be generally known; and if there be none, why the fact is, as it regards our opinion on the subject, it should be generally let alone.—Franklin, Lou. Banner.

MANNA OF THE DESERT.

M. Bore, formerly director of the gardens and farms of the Pacha of Egypt, found in 1832 the *Tamarix Mannifera* (taraf, of the Arabians of desert) growing in great abundance about a day's March from the borders of Mount Sinai. He saw women and children occupied in collecting the manna which fell in showers from the branches of this shrub. The Arabs assured him that this manna purified was not inferior to the best honey. That which he himself gathered was in large drops of the size of a pea, agreeable to the taste, and but little saccharine and gummy. To purify it the Arabs plunge it into boiling water and skim it. This is probably the manna which nourished the Hebrews, and which other authors have re-

garded as being produced by the *Alhagi Maurorum*, a shrub, which according to them is found on the confines of the desert, where a moisture, which it requires, prevails. M. Bore has however found two specimens in the neighborhood of Sinai.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM.	TO.
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs.	8 00	8 50
CORN, yellow,.....	bushel.		80
White,.....	"		75
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	18½	20
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.		1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's,.....	"	7 50	8 00
Do. do. Superfine,.....	"	6 87	7 12
SuperHow. st. in good de'd	"		6 50
" " wagon price,.....	"	6 25	
City Mills, extra,.....	"		7 00
Do.	"	6 50	6 62
Susquehanna,.....	"	6 50	
Rye,.....	"		
Kiln-dried Meal, in hhd's.	hhd.	19 50	
do. in bbl's.	bbl.	4 37	
GRASS SEEDS, red Clover,.....	bushel.	5 25	
Timothy (herds of the north)	"		
Orchard,.....	"	none	
Tall meadow Oat,.....	"		
Herds, or red top,.....	"		
HAY, in bulk,.....	ton.	20 00	
HEMP, country, dew rotted,.....	pound.	6	7
" " water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	9 00	9 25
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"		
OATS,.....	"	40	45
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 00	4 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	"	3	4
RYE,.....	bushel.	90	
Susquehanna,.....	"		92
TOBACCO, crop, common,.....	100 lbs	4 75	5 00
" brown and red,....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wrappery, suitable	"		
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 25	5 00
" ground leaf,....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.		1 41
Red,.....	"	1 30	1 38
WHISKEY, 1st pf. in bbl's.....	gallon.	38	
" in hhd's,.....	"	35½	
" wagon price,.....	"	34	
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	
To Wheeling,.....	"	1 50	
WOOL, Prime & Saxon Fleeces,...	pound.	55 to 68	30 32
Full Merino,.....	"	48	55 28 30
Three fourths Merino,.....	"	45	48 26 28
One half do.....	"	40	45 24 26
Common & one fourth Meri.	"	36	40 22 24
Pulled,.....	"	38	40 23 24

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	15	17
Shoulders,.... do.....	"	12	
Middlings,.... do.....	"	13	14
Assorted, country,.....	"	13	13½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	22
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	20 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.		1 87
CHOP RYE,.....	"		1 87
EGGS,.....	dozen.		12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	8 00	
No. 2,.....	"	6 75	
Herrings, salted, No. 1,.....	"	3 50	
Mackerel, No. 2, 9 25;—No. 3	"		6 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,..... par	
Branch at Baltimore,.... do	Farmers Bank of Virginia 2½
Other Branches,..... do	Bank of Virginia,..... do
MARYLAND.	Branch at Fredericksburg do
Banks in Baltimore,.... par	Petersburg,..... do
Hagerstown,..... do	Norfolk,..... do
Frederick,..... do	Winchester,..... do
Westminster,..... do	Lynchburg,..... do
Farmers' Bank of Mary'd, do	Danville,..... do
Do. payable at Easton,.... do	Bank of the Valley,.... do
Salisbury,.... 5 per ct. dis.	Branch at Romney,.... 1
Cumberland,..... do	Do. Charlestown,.... do
Millington,..... do	Do. Leesburg,.... do
DISTRICT.	Wheeling Banks,.... 3¼
Washington,.....	Ohio Banks, generally 3¼
Georgetown, } Banks, ¼	New Jersey Banks gen. 1½
Alexandria, }	New York City,.... ¾
PENNSYLVANIA.	New York State,.... 2½
Philadelphia,..... ¾	Massachusetts,.... 2½
Chambersburg,..... ¾	Connecticut,.... 2½
Gettysburg,..... do	New Hampshire,.... 2½
Pittsburg,..... 2½	Maine,..... 2½
York,..... ¾	Rhode Island,.... 2½
Other Pennsylvania Bks. 1½	North Carolina,.... ¾
Delaware [under \$5].... ¾	South Carolina,.... ¾
Do [over 5]..... ¾	Georgia,..... ¾
Michigan Banks,..... 5a	New Orleans,..... 5
Canadian do..... 5a	

OXEN WANTED.

THE EDITOR OF THE FARMER AND GARDENER, Baltimore, Md. wishes to purchase 4 pair of Eastern OXEN. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective Oxen, price deliverable at Baltimore, and time when they can be delivered there.

May 24th.

4t.

CONTENTS OF THIS NUMBER.

Notice of the rain—sale of bull Emperor—wheat crop in Frederick—demand for raw silk—sale of Dr. Hosack's cattle—notice of Rev. Mr. Breckenstein's letter on the rye crop, &c. in Pennsylvania—queries and answers relative to the silk culture—Mr. Whitmarsh's visit to the silk factories in France and Italy—silk in Vermont—recovering frosted plants—orchard grass—indian corn—potatoes for swine—corn, carrot and ruta бага crops—on watering lands—harvesting of corn—the horse Bee—look to your pork—on burning smoke houses—on manufacture of beet sugar in France—crops in Louisiana—manna of the desert—prices current, advertisements.

CLAIRMOUNT NURSERY, May 25th, 1886.

CATALOGUE
OF DOUBLE DAHLIAS FOR SALE.

- 6 Inwood's Crimson Multiflora, flowers early, 5 ft. \$ 75
 5 Jane Insurmountable, superb yellow, fine shape, 7 feet, 50
 12 Picta Formasissima, beautiful scarlet, striped with orange, 6 feet, 50
 4 National Guest—new and very fine, 2 00
 4 Rose d'Amors, inner petals white, 7 feet, 75
 8 Marshal Landgreve, a Rose Lilack, fine, 7 ft. 50
 3 Widnal's Granta, deep claret, splendid flower, 5 feet, 1 00
 3 Delicate Blush, 50
 9 Richardson's Alicea, white, with deep pink edge, 4 feet, 75
 6 Levick's Incomparable, scarlet, tipped with white, 6 feet, 1 00
 2 Lady Gray, pink and white, fine, 4 feet, 75
 6 Prince of Orange, fine orange, 5 feet, 60
 12 Jane Brosa Sinea, deep red, 5 feet, 50
 2 Neptune, a beautiful Lilack, a magnificent full flower, 4 feet, 75
 6 Beladona, purple and white, fine, 50
 3 Shanel's Renuncules, 50
 4 Buckhanan's Compacta, dark crimson, fine shape, 4 feet, 75
 2 Lord Brougham, superb crimson, 5 feet, 75
 3 Marchioness of Lotham, fine crimson, good shape and color, 4 feet, 75
 2 Widnal's Plutos, a fine rose lilack, 4 feet, 1 00
 2 Sulfuria exolata, fine yellow, 50
 2 Alba Fimbriata, 50
 1 Deneres Queen of the whites, 1 25
 1 Widnal's Perfection, fine rosy crimson, 1 00
 2 Lord Derby, superb deep crimson, full flower, 5 feet, 1 00
 2 Henry the VIII., a deep dark purple, most black, 5 feet, 1 00
 2 Widnal's Golconda, white penciled with lilack, 6 feet, 75
 3 Lord John Russel, a globe crimson, 5 feet, 1 00
 1 Pluto, dark purple, 1 00
 2 Crus Purpurio Varigata, 1 00
 2 Countess of Liverpool, 1 00
 2 Widnal's Village Maid, 2 00
 Many others.
 I will take \$6 for a dozen of my selection, and will send superb sorts, not having any bad ones. June 1

FIELD SEEDS.

NEW AND RARE SORTS.

THE Subscriber is just receiving ADDITIONAL SUPPLIES of European and other FIELD SEEDS, among which are many NEW AND RARE KINDS, and well adapted to suit the MIDDLE and SOUTHERN STATES, viz:

PERENNIAL and ITALIAN RYE GRASS, these grasses, particularly the former, are extensively cultivated in Europe, are generally mixed with clover; fine pasture, rich moist meadow land suits them best. Sow 1 bushel to an acre.

SAINFON or ESPERSETT, particularly adapted to a calcareous or chalky soil, considered in England, one of the most valuable plants: farmers not possessing calcareous soils, may succeed with this grass by dressing their lands with clay marl. This grass would no doubt flourish well in our most southern states.—3 to 4 bushels of seed should be sown per acre.

FIELD BURNETT, this grass is well suited for sowing on high, gravelly soils; fine sheep pasture—sow 2 bushels per acre.

SCARLET CLOVER, or TREFOIL.—*Trifolium Incarnatum*. A valuable early grass, and fine for soiling in summer, or supplying food when other grasses are winter killed. If sown in the fall it can be cut three weeks earlier than common clover, or if sown in the months of April, 50 days after sowing. From its rapid growth it is likely to become a valuable acquisition to the farmer—20lbs. is required to seed one acre. Also for sale a few pounds YELLOW TREFOIL.

WHITE DUTCH CLOVER.—Fine pasture, and for lawns. Its increase is very much facilitated by a top dressing of ashes—sow half peck per acre.

BLUE GRASS, GREEN GRASS, &c.—Suitable for for e, ing fine green swards, and sometimes sown for sturpam and on meadow land—sow 1 to 2 bushels per acre.

SWEET SCENTED VERNAL GRASS.—Particularly valu-

able for pasture, very early; proper situation well drained meadow land.

MILLET.—The stalk of this plant resembles those of Indian corn, though much smaller, principally valuable for green fodder, 2 good crops can be raised during the season, the first to be sown about the 20th May, on a rich light soil—half a bushel of seed should be sown per acre, if fodder is the object, and less if for seed.

ENGLISH & POLAND OATS—several sorts weighing 44 lbs. per bushel, cultivated as the common kinds.

SKINLESS OATS.—The grain naked like wheat, should be sown about 15th April. A product of 80 bushels, is said can be produced from one acre, and each bushel is worth three times more than the common oats—price 50 cts. per lb.

SPRING & WINTER VETCHES or TARES.

LUCERNE or FRENCH CLOVER—Very valuable, especially for soiling, bears cutting several times during summer, requires a deep rich loam, not wet. Stands the severest winters, and drought does not effect it—20 lbs. is sufficient to seed one acre, if sown broad cast—half a bushel of rye or oats if sown with 20 lbs. of seed will effectually protect the tender plants from weeds.—See Am. Farmer.

GAMA GRASS.—This last but not least in value, is a strong coarse grass, indigenous to all the Southern States, but has been but partially cultivated, its product is immense. Animals eat it with avidity. An ounce of seed which contains 260 kernels, will by being planted and subdivided three seasons in succession, enable the culturist to set out a meadow of 53 1-2 acres, which will last him an age—price 50 cts. per ounce.

ALSO

MANGOLD WURZEL, or large pale red Beet; RUTA BAGA; LARGE YELLOW TURNIP; ROUND & LONG CROOKED PUMPKIN; FIELD PEAS and BEANS; COW CABBAGE, or *Cacaenam Kale*, a fine green fodder for cattle; Altringham Carrot; MERCER, EARLY KIDNEY & EARLY ROUND POTATOES.

For sale by R. SINCLAIR, Jr.

June 1 Light, near Pratt st.

AGRICULTURAL AGENCY in Philadelphia,

(No. 5, SOUTH FIFTH-STREET.)

THE Subscriber continues to purchase and sell on commission, Cattle, Sheep, Hogs, Asses, and other domestic animals of choice breeds or qualities, suitable for breeders.

He has now on register for sale, the following animals, viz:

VERY VALUABLE SWINE.

One boar and three sows, of the genuine Norfolk thin rined breed, one year old and upwards.

Also, five sows and four boars of the Philadelphia white breed—some nine and the rest twelve months old. Most of the sows of both kinds are supposed to be in pig. Price twelve and a half cents per pound.

FIRST RATE JACKS AND JENNETS.

Two Jacks and three Jennets, of the largest size and best blood, of good ages, and remarkable fine breeders.—The Jacks are near 14 hands high, and the Jennets 13 hands and upwards. Two of the Jennets are in foal by an imported Maltese Jack, full 14 hands high. Besides these, which are such animals as can seldom be obtained, the subscriber can at all times procure to order good Jacks and Jennets at fair prices.

CHOICE CATTLE.

Several bulls, cows and heifers, of the Improved Durham Short Horn breed, with indisputable and excellent pedigrees, are for sale at prices much below those recently obtained in this vicinity for animals in no respect better.

MERINO and BAKEWELL SHEEP.

The subscriber has made ample arrangements to meet this summer the numerous demands upon him for choice breeders of the above kinds.

All orders sent him early, say previous to the first of August next, will be filled promptly from the best flocks in this region, which are believed to be equal to any in the Union.

SHORT WHEAT.

The subscriber is sole agent for the sale of this year's crop of this most extraordinary variety of Polish wheat, for a description of which see Farmer & Gardener, vol. 2, page 164. Price \$5 a bushel. Orders must be forwarded before the end of July, and the wheat must be paid for on delivery.

All letters not containing orders ought to be post paid and directed to J. IRVIN HITCHCOCK,

June 1 cow3t Philadelphia.

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted, Wove wire for screens, fans, cellar windows, sales, &c. Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment extra castings for ploughs of all kinds, Threshing machines, Horse powers, Mill work, window weights, &c can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffe oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours.

Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50a75 cents, 1a\$2 each. A liberal discount will be made when 1 doz. or more are taken.

may 10

ROBT. SINCLAIR, jr.
Light, near Pratt street whf.

SPLENDID DOUBLE DAHLIAS—FIELD BEANS, &c.



WM. PRINCE & SONS have received five collections of Dahlias from Europe, selected from the most celebrated establishments there, and comprising the very elite of all that have been brought into notice there during the last two years. These will be furnished at the most moderate rates.

Of the older varieties they have a great stock, comprising a great number of choice varieties that are yet sold at high rates elsewhere; but which we now offer at 3, 4, 5 and 6 dollars per dozen, according to the kinds. Priced catalogues will be sent to every applicant, and orders for trees, plants, or for garden, agricultural and flower seeds, will receive the utmost attention.

650 bushels of White Field BEANS of a superior quality and of a very prolific variety, at \$2 per bushel by the barrel or tierce—Terms Cash.

Linnæan Garden and Nurseries, Flushing, near New York.

May 24th.

2t.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 6.

BALTIMORE, MD. JUNE 7, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 7, 1836.

THE WHEAT CROPS—INADEQUACY OF SUPPLY, VALUE OF AGRICULTURAL PRODUCTS, &c.

At this season of the year, it is customary to receive unfavorable accounts of the growing crops of small grain. In years gone by, these accounts have been often greatly exaggerated. At times when we have heard it iterated and reiterated from an hundred quarters that the seed would not be yielded by the then growing crop, a very fair average one has resulted, to reward the agriculturist for his toils and his capital. This difference between anticipation and actual result, we never considered referrible to any design to advance *present* price by holding up a gloomy *future* in prospective; for we were fully sensible how natural it is for us all to look upon the dark side of the picture, when any unwelcome state of things beset our pathway. Although we had been in possession for several weeks of intelligence which would have authorised us to state that the growing crop of wheat gave but sorry indications of fruitfulness, we deemed it the part of prudence to say nothing until last week, hoping that by the recurrence of a rain, the sore enemy of American wheat fields—the Hessian-fly—would be dislodged, and vegetation would be restored to its wonted integrity. But we really fear that the goodly rain with which we have been blessed almost continuously since the 24th ultimo, up to the period of our penning this article, June 2d, has come too late to vouchsafe any thing like half a crop; for the information reaches us from every direction in New-York, Pennsylvania, Delaware, Maryland and Virginia, that the fly has been rife with the wheat crops in those States; that some farmers had ploughed in what had been *left*; that nothing like an average crop can be expected from the best fields, while from many, the seed will not be realised. Of the crop in the rich and fertile county

of Frederick, in Virginia, the Winchester Virginian says:—

“Our farmers are loud in their complaints of the ravages of the fly among their wheat crops, and we have reason to fear that the growing crop in this county generally will fall very far short of what we are accustomed to; indeed it is now very doubtful whether half the usual quantity will be raised in the county.”

We have merely inserted this paragraph to show the character of others which have come to hand; and in this state of agricultural prospects, we would ask, is it not the part of a wise foresight for farmers to be casting their thoughts around them for something that will come in to supply the deficiency in that of the wheat crop? We think it would be not only the part of wisdom, but that such a course is absolutely required by the positive necessities of the times, present and to come. It is known that nearly the whole supply of bread-stuffs of the eastern, middle, and southern Atlantic States, both for export and home consumption, are drawn from New-York, Pennsylvania, Delaware, Maryland and Virginia. It is known too, that although the demand has increased and is increasing, with a ratio that puts all calculations at fault, the supply has been on the decrease for many years. And from conversations we have had with intelligent and well judging persons from various parts of our country, we think we may venture on the assertion, that the wheat crop of the present season will be as short, if not shorter, than it has been for twenty years. Besides the rapidly increasing rate by which our population is augmented through the *natural* cause, the vast influx of foreigners tends greatly to increase the consumption of the products of the land, and to add to the embarrassment arising from the scanty yield to which we have before adverted. Thus circumstanced, with so deadly an enemy to the wheat crops as is the *fly*,—with so great a certainty of its annual depredations,—with a population augmenting in a degree so decidedly disproportionate, we maintain that a substitute for the grain of all kinds used by our stock, should be provided. By a judicious accommodation of horses, cattle, and hogs, to the use of roots, instead of grain, a very large amount of bread-stuffs might be thus saved, for the pur-

poses of human subsistence, that is now fed away to stock, and the stock themselves be fully as well conditioned. To us it appears evident that agricultural products of all kinds will, by the unerring operation of that law which regulates *price* in all the departments of human industry, be enhanced in value for at least ten years to come—the cause is to be found in the preceding remarks, and needs not to be repeated; for whilever the supply remains inadequate, the value of the commodity must be increased.

We throw out these reflections at the present moment, because there is still time enough for farmers to put in extra crops of the proper kinds of roots to ward off the evil, which would otherwise result from an insufficiency of food for consumption.

We rejoice with the soberness of rational patriotism at the passage by the House of Delegates of Maryland, of the Internal Improvement bill, and in so rejoicing, we indulge in none of those exclusive sectional feelings, which might be supposed to attach to us as a Baltimorean. In great matters of moment, we have always endeavoured to repress the yearnings of home—to check its influence—and to look at the question upon the broad basis of public good. Testing the present measure by this rule, we must say that we regard it as being fraught with more good than any other legislative act that has ever passed the councils of our state. It guaranties at once the completion of two great national works, which will ultimately connect the waters of the Atlantic with those of the West. To Maryland the completion of those works are of vital consequence. Limited in territorial domain, but most happily located by nature for the enjoyment of trade, she has wanted nothing for years past but such intercommunications to ensure her a large portion of the business of the valley of the Mississippi. Let the rail road and canal be finished, and who can form any estimate of the value of that trade which will at once pour into our lap? No one, unless he be gifted with prescience; for superior facilities of communication always attract capital, enterprise, and custom, and though the *emporium* of our state may never vie with New York in the extent of its commercial

operations, there can be no question that it will increase with a stride that will excite no less pleasure than surprise. Nor need we say that as its mercantile resources expand, so will the benefits be diffused through every portion of Maryland. Enhanced value will be given to the products of the soil, to landed property, and to labor,—new enterprises will be engaged in—sources of private emolument will spring up from a hundred quarters where they were least expected, and our gallant little state, though small in limits, will present to the view of the country a spectacle of moral and physical grandeur—it will be the spectacle of a densely settled, intelligent and industrious population, busily engaged in active commerce at home and abroad—encouraging the arts and sciences, and promoting learning. It will present the animating sight of an enlightened community, possessing the means and exerting them, to make it honored and loved within its own borders, and challenging respect from a distance.

These being our views we congratulate the people of Maryland upon the happy auspices which are dawning upon us: and as a measure of gratitude to those master spirits who have succeeded in carrying the bill through, we tender to them our unfeigned acknowledgments, and regret that we are too poor in language to convey a faint idea of those emotions of thankfulness with which our heart is impressed upon the occasion.

We have had 12 days of almost incessant rain. The earth may be said to be laboring under a super-saturation of water; for it is alike too wet for healthful vegetation or to work. Plants of all descriptions are longing for a sight once more of the sun, whose cheering face has been obscured from view since the 24th of last month up to the period of penning this article—Saturday, June 4, 10 o'clock, A. M.

M. PUVIS ON THE USE OF LIME AS A MANURE.

We published in the 28th, 29th, 30th and 31st numbers of our 2d volume, the very interesting and instructive paper of M. Puviss on the subject of liming lands, and we took occasion at that time, as we have done since, to say, that we considered it the most satisfactory essay on the use of lime as an agricultural agent that we had ever read. We are now happy to find that at the instance of James Wadsworth, Esq. of New York, professor *Renwick*, of Columbia College, has republished it in pamphlet form, with a very luminous as well as learned introduction, which

we will take the pleasure of laying before our readers in our next number. The use of this valuable mineral as a stimulative manure cannot be too often introduced to the notice of farmers, as it is the greatest means of renovation for exhausted lands within their reach, and indeed may be said to be the greatest discovery ever made in husbandry.

PATENT SELF-SETTING SAW-MILL DOGS.

Hardy & Rich, of Lockport, New-York, have invented patent self-setting saw-mill dogs, which are highly spoken of. They are made of cast iron, fitted on wood, and by no means complicated. When the log is placed on the carriage, the thickness of the board or plank is accurately cut to the required width, entirely by the machine, which is strong and simple. The boards are represented as being sawed of a uniform thickness, leaving no stub-shot.

ALMS-HOUSE AND SILK CULTURE.

We learn from the *Belvidere Apollo*, that the directors of the poor's house for Sussex county, New Jersey, sowed mulberry seed on their farm last year, which has vegetated well, and that there is a fair promise that the paupers may soon be profitably employed in the culture of silk.

This is a laudable example—one worthy to be followed by every county in the United States, where there is a county poor's house. In our own mind, we do not entertain a doubt that by adopting the silk culture, the poor may be made to more than pay all the expense attending their support, and thus relieve their respective counties from this onerous burthen.

The *Meadville Courier* says that Mrs. Simpson Hamilton, of that village, made more silk last season than will make her a dress. The example of this lady is worthy of emulation, and we hope it will inspire a correspondent feeling of patriotism in her country-women; for certain we are, they cannot be engaged in a more holy cause, or one whose benefits would be more productive of public and individual good.

IMPORTED SILK.

It is stated on the authority of Dr. Stebbins, that the silks imported into the United States during the year 1835, amounted to \$16,497,000.

CESAREAN KALE, OR COW CABBAGE.

We recommended in one of our recent numbers the culture of this vegetable, and in a late number of the "*Old Countryman*," we find it thus highly spoken of:

"A seedsman of Hull advertises the seed of a gigantic kind of cabbage, called the "Waterloo or

cesarean cow cabbage:" of which he says that "five will keep 100 sheep a day, or 10 cows, with proper management; they are now growing from 9 to 12 feet high, and 15 feet round."!!!

WORK FOR JUNE.

The season has proved so eccentric since the opening of that period of the year usually devoted to agricultural purposes, as to render our task of saying what is the appropriate work for this month, one of great difficulty and embarrassment. In ordinary years, each of the three months which, in the division of time is allotted to spring, the husbandman, the horticulturist, and the florist, has the peculiar work for each marked out periodically for execution; but such has been the deviation of the spring, which has just closed its career, from the customs of former times, that much of the labor usually performed in the months of April and May, is still undone, and the month of June, which in times of yore was so blithesome, is destined to be converted into a drudge to make up for her churlish and uncompromising predecessors, whose cold, and drought, rendered timely labor unavailable.—*March* was locked up with snow and ice, and defied human exertion. *April*, so celebrated in song for its invigorating showers, was ushered in with cold withering rains, which, while they proved dank and unwholesome to man, and uncomfortable to beasts of burthen, were as deadly in their consequences upon vegetation as are the poisonous exhalations of the fabled Upas of the East. Nor were its latter part less noxious to the wholesome growth of plants; for it ushered in a blighting drought that continued until the 24th of its succeeding month, and rendered *May* the hitherto fruitful parent of all that is lovely to the eye or conducive to human comfort and sustenance, a month barren of every thing that could delight the imagination or gratify the appetite. Labor itself was arrested by its cruel behests—the earth, which so generously repays us for all our toils, was made to keep its bowels literally as a sealed book, the greater part of the time, and to refuse to be the recipient of the seeds of the earth. Thus, grudgingly, the months designated passed by, and the summer has come upon us with a cold atmosphere, a clouded sky, chilling rain, accompanied by a northeaster which promises to be prolific of nothing but "disasters by flood and field."

But let us turn from this frightful picture of agricultural disappointment—this landscape of horror and gloom, to the more gratifying task of depicting what is to be done. The wheat crop, the chief of the bread stuffs, as we have shown

in another paragraph, is likely to prove an uncommonly short one, and therefore has devolved upon us the necessity of putting in extra quantities of such roots as will serve to sustain our stock, and thus decrease the consumption of grain crops.

ON THE FARM.

Corn. Those who have not yet got in their corn, and there are many who have not, should lose no time as soon as there is a cessation of rain to get it in, and no one should be deterred from the lateness of the season from planting; for as we have had a prolongation of winter in *spring*, it is natural to expect that the fall will be exempt from early frosts; in which event there will be no doubt of the grain maturing.—But should it not do so—should premature autumnal frosts prevent it—the stalks and fodder will be valuable as food for our cattle, and from present appearances every thing of the kind will be needed.

Those who were fortunate enough to get in their corn early should seize the *present* moment as the auspicious one to replant such parts of their crop as may require it.

And here, while we are speaking of corn, let us admonish our agricultural brethren to plant *pumpkins*, *beans*, and *peas*, in their corn fields. This mixed culture will but little decrease the yield of their corn, and will add immeasurably to their means of supporting their stock.

Your early corn must have the harrow passed over it, and such stalks as may be displaced must be righted up: as soon as weeds appear, pass the cultivator through it, and repeat the operation when needed, at least twice before your corn is in silk, and when that is done its cultivation will have been completed; for in keeping the ground stirred and clear of weeds, the whole mystery of raising corn consists. A spoonful of plaster on each hill will have an excellent effect; and a pint or half pint of ashes on each hill, will tend greatly to promote the growth of the plant and increase its yield.

Corn Broadcast. Those who may have reason to fear a short supply of clover and other hay, should put down a few acres in corn broadcast—if sown *four* bushels to the acre in good ground, or even in inferior soil well manured, it will yield 4 tons to the acre, without materially impairing the land. Indeed, if the stubble be immediately turned in after the fodder being cut, we question much whether any impairment of its quality will occur.

Millet. This fine and prolific grass, or grain, for it partakes of both properties, should now be

sown. Plough up your field which you intend for it deeply and well, then manure it at the rate of 15 or 20 double horse cart loads to the acre, plough it in about 3 inches, roll and harrow the ground so as to pulverise it thoroughly; then sow at the rate of three pecks of seed to the acre, bush harrow it in, and you may expect to reap from 4 to 6 tons to the acre. If cut at a proper season, besides affording you the above quantity of hay equally as good as timothy, it will yield you from 15 to 20 bushels of the grain per acre, which you can either sell as seed or feed away.

If you so please, after having cut and cured your hay, you may sow timothy seed upon your millet stubble, and may depend on its being *well set*, if the seed be good and sown with a liberal hand.

Potatoes. Your early potatoes should be worked, kept free from weeds, and the ground loose.

Prepare your ground without further delay for your late potatoes. Let it be ploughed deeply and well pulverized. Place your sets of potatoes, if in drills, (which should be 27 inches wide) about 9 or 10 inches apart, throw your manure over them and then cover them with the soil. When they come up pass your harrow over them, and when they need it, plough on either side, throwing the furrow towards the plants.—One ploughing and twice working with the cultivator will be sufficient to ensure a good crop.

If you prefer planting in *hills*, let them be 27 inches apart, and work them the same as you would, had they been in rows, with the exception, that you must use the *hoe* instead of the harrow, plough and cultivator.

If you should not have a cultivator a small plough will answer.

Mangel Wurzel. This root should have been planted much earlier, but even now we apprehend it would prove to be a profitable crop. The leaves alone would compensate for the trouble and cost of cultivation at any time; but at the present period when there is so much to be apprehended of a scarcity of bread-stuffs, its cultivation should be especially looked to. Though the roots might not assume their maximum size, they would assuredly amply repay for all trouble in their cultivation, and prove a most useful auxiliary during winter in the feeding of the stock, and particularly the milch-cows, whose capacity for yielding rich and copious supplies of milk they never fail to increase.

The ground best suited to their growth is a rich loam, but they will grow to advantage in any

soil that is deeply ploughed, well manured and thoroughly pulverized. No one who wishes his cows to yield good supplies of milk through the winter, or who desires that his butter should be imbued with the richness imparted to it by a May pasture, should fail to raise an acre or two of this excellent root. Its leaves during the latter part of summer when the pastures are mostly dried up, and through the fall, will supply the place of absent grass—and in winter, its luscious and succulent root will keep your cows to the pail with the freshness of early summer grass.

Its mode of cultivation is the same as that of common beets, and its yield if in good ground would be from 300 to 800 bushels or more to the acre.

Ruta-baga. This fine and healthful root, which, with a little admixture of bran, is eaten with avidity and decided advantage by horses; upon which bullocks and hogs, with a slight addition of bran or meal of any kind of grain, will fatten readily, should be cultivated by every farmer who studies his interest, or the comfort of his stock. Its mode of culture is simple—manure, plough and pulverize the ground thoroughly, drill in the seed on two furrows, thrown together, 27 inches apart, harrow the ground when the plants are an inch high, and when four or five inches high, thin out to the distance of 8 or 10 inches. The after cultivation must be directed to two objects, viz. keeping the earth *stirred*, and clean of weeds. In passing the plough through them the furrow should be turned *from* the roots, so as to leave a large portion of them *bare*; they grow much better when thus treated.

Clover Hay. This is the time to cut and cure your clover hay, and the sooner it is done after it is in full bloom the better, as that is the period when the vegetable oil is most abundant, and which, of course, must be the auspicious period for harvesting it, as the greatest quantity of nutriment then abounds. But if it be important to cut at this particular juncture, it is equally so to *cure* the hay so as to preserve the oil. It would therefore strike us as proper, that after the clover is mown it should be exposed as little as possible to the action of the sun; for besides losing a large portion of the oil by evaporation, the leaf and flowers, the most material parts of the grass, would be liable to be chafed off and lost. Instead of spreading the cut clover over the surface of the field, it should be raked into small parcels the size of a bushel, which should be turned over, bottom upwards, several times. After a few days of such treatment it will become wilted, when it should be packed away for win-

ter use. If not quite dry, the addition of a layer of straw to each layer of clover hay, sprinkled over with salt, in the proportion of a peck to a ton, would be of infinite service. The straw would become impregnated with the delightful flavor of the new clover, and be equally as acceptable to stock as the hay itself, while the salt would serve the double purpose of keeping down fermentation, and preventing the hay from becoming depreciated in quality and quantity, from loss of leaves.

Weeds. The eye of the cleanly farmer will be directed to the extirpation of those pests of the field. None that can be prevented should be permitted to go to seed. Those who have young negroes on their estates, who are too small for other employment, should occupy their time in gathering weeds in every direction on their respective places, and depositing them in their dung pits, where they should be covered with earth. In this way an estate may be greatly relieved of these nuisances, while they will be converted into fruitful sources of vegetable aliment.

To bring our notice of the work on the farm to a close, keep your corn, potatoes and other crops *clean, and the ground well stirred.*

IN THE KITCHEN GARDEN.

Your melons, cucumbers, squashes, pumpkins, potatoes, early cauliflowers and cabbages, borecole, brussels sprouts, Jerusalem kale, must now be attended to and receive appropriate dressings.

If your *celery* plants are of proper size they should be planted out in trenches, and as we know of nothing more healthful, or delightful to the palate, we will give brief directions for their management.

You must in the first place select a rich spot of sandy loam, which lies low and moist, with an open exposure. Mark out your trenches by line which should be 12 inches wide, your beds should be three feet wide between the trenches. Dig the trenches a spade deep, and lay the earth which you dig out on either side—lay at the bottom of the trenches 3 inches of very rotten dung, pare the sides and dig the dung and parings with an inch or two of the loose mould at the bottom, incorporating all well together and put in the plants.

Previous to planting, trim the tops of the plants by cutting off the long straggling leaves, and also the ends of their roots, leaving the former about 6 inches long, and the latter two.

Let them be planted with a dibble, in single rows along the middle of each trench, allowing the distance of 4 or 5 inches between each plant

—when planted they should be freely watered and shaded until they strike root.

Your asparagus must be cleaned from weeds. Transplant your leeks; sow and transplant lettuce—plant beans at intervals of a week during the month. Sow radishes in shady moist situations—the turnip rooted is the best for this season.

Your parsnips, carrots, beets, and onions, must be kept clean and the ground open.

Sow turnips for early use. Earth up your okra and plant out your tomatoes and egg plants—as also your peppers.

IN THE FLOWER GARDEN.

Your hyacinths and tulips will in the course of this month be fit to be taken up. As also your ranunculuses, anemones, and various other flowering bulbs.

If you wish to preserve and prolong the bloom of your carnations and pinks they should be protected by awnings from the direct rays of the sun.

Want of room prevents us from being more particular in our notice of the work to be done in the flower garden; but we feel less regret on this account, because we know that those whose chief province it is to watch over and direct the cultivation of the floral tribe will more than supply our omission: that that ever watchful and untiring patient zeal in the pursuit of noble ends, which distinguishes the sex, will on this occasion stand forth in bold relief to promote the growth and preserve the bloom of those beautiful ornaments of the garden, which are at once the source of so much pleasure and pride.

[From the Cultivator.]

PROOFS OF THE UTILITY OF MARL.

Hights Town, N. J. April 15, 1836.

DEAR SIR—In my last communication I stated, that at some future time I would give you an account of the benefits resulting from the use of the Squancum marl. I cannot attempt a chemical analysis, but merely describe the tests of *old mother earth*, the great practical solvent, of all compounds.

1. Mr. William T. Sutphin, distant eight miles from these marl pits, about six years ago purchased a farm, consisting of 200 acres—gave \$4,000; this spring he says he has refused \$15,000.

2. Job Emmons, seven miles from the marl pits, about six years ago, wishing to go to the distant west, where land was cheap and better, he put up his farm at auction (130 acres); the highest bid was \$1,350; he offered it for \$1,600, but no one would give it. Being disappointed in selling, he commenced marling; last year he cut more than one hundred tons of good hay, and now refuses \$7,000 for the farm, having all the benefits of the mighty west without going there.

3. Judge Simpson, nine or ten years ago, purchased 175 or 200 acres—gave five dollars and sixty cents per acre; at the time the land was scarcely worth the tax; he can any day have sixty-five dollars per acre.

4. Judge Wm. Bown, seven miles from the pits, a few years ago, purchased 175 acres for \$4,000; this spring he has refused \$10,000.

5. Mr. Smock purchased about 300 acres for \$3,100, in 1832, on which his son resides, distant about two and a half miles from his own farm, on which he has most valuable marl, some ten or twelve miles from the Squancum marl pits, and supposed very little inferior. The occupant sold a great quantity of grass standing, last summer, for seventeen dollars per acre. Mr. Smock's homestead farm he purchased in dear times, (24 years ago)—275 acres for \$7,500; worth, independent of the marl pits, over 15,000, nor can any farm east of him, at this time, be purchased for \$75 or \$100 per acre.

6. Mr. Samuel Spencer, three and a half miles from the Squancum marl pits, nine or ten years ago, purchased a large farm, and gave fourteen shillings (\$1,75) the acre, lately sold of the same one hundred acres for thirty-one dollars per acre.

These are a few facts that have come to my knowledge. All that region of country is improving in the same ratio. Who wishes a better chemical analysis than this? or who wishes to emigrate to the western wilderness for better land? The minds of men are ever subject to change. Is it not better for us to "be content with such things as we have?"

As soon as I can procure a spare copy of Rogers' Report, I will send you one, on the geological survey of New-Jersey.

The information I give about the peach buds, was probably too unfavorable. All the young trees in this region of the country are generally killed in the bud. The old trees becoming acclimated in the winter before last, have endured the late winter better. About one-half the buds on the old trees are good. Many large orchards in the county of Monmouth, to the eastward of us, I am informed, are perfectly good, and bloom buds uninjured; however, one easterly storm from the ocean, when the orchards are in full bloom, will destroy, in a night, like the angel of Egypt, all their hopes.

Respectfully, your obedient servant,

CHARLES G. MCCHESNEY.

[We append to the communication of our correspondent, as pertinent to the subject, the following extract from Prof. Rogers' Report.]

"Marl, or green mineral," says the Professor, "loses nothing of its potency by a long exposure, even of years, to water and atmosphere, in other words, it is not dissolved, or decomposed, or changed, by the ordinary atmospheric agents which react so powerfully upon other minerals, consequently we are to regard it as nearly tact, with it to effect its decomposition, by the *vital* power of their organs, and imbibe a portion of its constituents.

Mr. Woolley manured a piece of land in proportion of two hundred loads of good stable manure to the acre, applying upon an adjacent tract of the same soil his marl in the ratio of about twenty loads per acre. The crops, which

were timothy and clover, were much the heaviest upon the section which had received the marl: and there was this additional fact greatly in favor of the fossil manure over the putrescent one, that the soil enriched by it was entirely free of weeds, while the stable manure rendered its crops very foul.

"This being an experiment, an extravagantly large dressing of manure was employed, but not exceeding the usual average application; more than twenty loads of marl surpassed what was necessary for it.

"Experience has already shown, that land once amply marled, retains its fertility with a little diminution, for at least twelve years, if care be had not to crop it too severely, while with all practicable precautions the stable manure must be renewed at least three times in that interval to maintain in the soil a corresponding degree of vigor.

"The high and deservedly high name, which the Squantum marl now boasts, was an inducement to me to subject it to chemical examination, with special care and rigor. In external aspect it differs in no respect from any other marls of the state, and chemically studied, I do not find it to depart very materially from several others in the proportion of constituents, though it does most certainly possess an amount of potash in its composition not a little astonishing. Others, however, seem to have nearly as much.

"At the pits, which are very extensive, the marl is sold at the rate of 37½ cents the load.

It is transported by wagons, to a distance in some directions of twenty miles, and retailed, when hauled that far, at the rate of ten or even twelve cents a bushel—being very profitably spread upon the soil in the small proportion of twenty-five or even twenty bushels to the acre. The fact that no small amount of this marl is found efficacious to the soil, which after two or three dressings is permanently improved, and to a high pitch, by it, furnishes me one consideration for supposing that too generally the marl is spread with a prodigality surpassing all the necessities of the land.

"A specimen of the marl from Throp's lowest layer, yielded me, after reiterated trials, uniformly about the following, for its composition.

Silica,	43 40
Protoxide of iron,	21 60
Alumina,	6 40
Lime,	10 40
Potash,	14 48
Water,	4 40

99 68 in 100 gr's

"Throughout all the district in which this deposit occurs, it is extensively employed in agriculture. In the neighborhood of Arney's Town, one of the points which I visited, it has been used as a manure for the last thirty years—but its general introduction is of more recent date. In the region in which the marl chiefly abounds, the soil is loamy, having in some places a large intermixture of tenacious clay. East of this tract, which is a narrow band nearly parallel to the Delaware river, the country assumes an appearance very similar to that of the sandy lands of Eastern Virginia, covered with a thick growth of pine, and comparatively unproductive. On both

these varieties of soil the green sand is continually used with the most striking benefit. For the clay soils, the more sandy marls are of course preferred; and for the sandy soils, those which contain some clay along with the marl. The proportion in common use near Arney's Town, is from ten to twenty loads per acre. In other places five loads, or even less, is found to be sufficient. The action of the marl appears to be very permanent, as will be evinced by the following statement. In a large quadrangular field, over which I walked, four successive applications of the marl had been made at intervals of four years, commencing about twenty years ago. The first dressing was applied to the north side, the second to the south, the third to the east, and the fourth to the west, while a small space in the centre was left without any marl. All four sides were covered with a very heavy crop of clover, which was nearly if not quite as luxuriant on the north as either of the other sides—while the space in the middle was almost bare. The action of the marl appears to be most powerfully felt by clover and grass, but it is very conspicuous also with small grain and corn. A very intelligent farmer told me that it more than tripled his clover and grass crop, and doubled his small grain. In general it is spread upon the clover every fourth year, and ploughed in for the next crop. That it is very efficient upon sandy soils is evinced by the following striking fact. Some years ago, an enterprising farmer, near New Egypt, purchased two hundred acres of the Pine Barren, which, by marling, he has converted into pasture for one hundred head of cattle. Such is the demand for the marl, even at a considerable distance, that it has become an article of great profit to the proprietors of the pits, and more than one individual was pointed out to me who had risen to wealth by the sale of marl."

(From the Maine Farmer.)

ON RUTA BAGA.—No. 1.

Mr. HOLMES.—It may be that I will encourage the raising of Ruta Baga if I state my success in that crop the last season, though not a remarkable large one, yet as hay and food for cattle has been, it was a profitable one. It grew on just one fourth of an acre of ground, which yielded 204 bushels, by weight 64 lbs. to the bushel—the same as the law requires that potatoes should weigh.

It is supposed by most farmers that 2,000 lbs. of this vegetable and a ton of hay will sustain our cattle as long, or go as far in our stock as 2 tons of hay fed out understandingly, or in other words, they are worth as much, pound for pound, as English hay.—According to the above number of bushels and weight, there grew on the quarter of an acre 6½ tons and 56 pounds. Hay is worth \$20 per ton—if Ruta Baga, weight for weight, is worth \$20 per ton—the 6 tons and a half and 56 lbs. amounts to \$130.56—equal to \$522.24 per acre, when forage is thus high.

I will now give an account of the actual profit, as I sold some, and might have sold the whole at the same rate, for as hay has been high I evidently undersold. Two shillings a bushel I sold for 64 pounds by weight per bushel—at that rate the 204 bushels amount to \$68—equal

to \$272 the acre. All can see that I undersold as forage has been this season—but as the worth of hay is, take one year with another, they are worth and will bring 25 cents the bushel, if kept until April—at that rate my quarter of an acre would bring \$51, equal to \$204 per acre. Is it worth while to attend to raising Ruta Baga—this question will be better answered when I make known the expense as I intend in a future communication.

WINTHROP.

ON RUTA BAGA.—No. 2.

Mr. HOLMES.—You may recollect that I engaged, in a former communication on my crop of Ruta Baga the last season, to state the expense which I was at respecting it. The land as I remarked in my former communication consisted of the 4th of an acre, of rather light soil, having formerly some wash from the high way. Potatoes were planted on it the year before, on sward recently broke up—previously it had been mowed many years. The ground was tolerably well manured the year I raised potatoes on it, and I had a fair crop. In May last I manured it again, with new manure from my heaps at the barn, say about 4 cartfuls on the quarter of an acre. I spread it and ploughed it immediately under, not permitting it to manure the atmosphere. I then harrowed it down level, then let a chain be drawn 2½ feet asunder to mark it for sowing. I then, by hand sowed my seed in the chain marks pretty thick, and a hand followed with a hoe and scraped some loam on to cover it, which took about 2 hours each. The seed come up well—soon after I sowed the plants over with wood ashes, and I had many plants to give my neighbors, but before they were large enough to set, the ground became weedy. I hoed it between the rows which took a day's work, when the plants became large enough to set—after giving away some, many remained in the rows. I then hoed the ground with a hoe of common size, right through the rows and thinned them, so that they stood, say 9 inches asunder in the rows, which took 3 days labor. I hoed them again very soon or the leaves would have spread so as to render it impossible to have hoed them without injury, which took a day and a half labor, making 5½ days work, besides sowing the seed, say nearly a half day's labor, worth in all \$5.00. The leaves well paid the harvesting. Here is the cost of my 204 bushels of Ruta Baga except 25 cts. for the seed and manure and 2 bushels of ashes.

WINTHROP.

April 18, 1836.

N. B. Cost—Labor	\$5.00
Seed	.25
Ashes and putting on	.40
Half the manure and spreading	2.50
	\$8.15

[From the Northampton Courier.]

France is considered a silk growing country, yet she does not grow sufficient for her own manufactures, and it is said, annually imports raw Silk to the amount of \$6,000,000.

England, owing to the humidity of her climate, cannot raise the worms to advantage, and

for her numerous manufactures is obliged annually to import the raw material from other countries to the amount of about \$17,000,000. It is stated that we import annually of *Raw Silk* to the amount of about \$10,000,000, and of the manufactured over sixteen millions.

Unless the United States push the culture of the *Mulberry* and raising of cocoons, beyond any thing now in operation, many long years must intervene, before we can supply the demand of our own markets. Inhabiting as we do one of the best climates in the world for manufacturing silk of the best quality, instead of paying ten millions of dollars annually to other nations for the raw material, we ought to export 2 or 3 times that amount.

It is said our imports of Silk stuffs exceed our export of Bread stuffs—why is this? Only because we do not duly appreciate and improve the means we have. Let our intelligent farmers be convinced that the silk business is profitable, and then we can hope that every exertion will be made to extend the cultivation of the mulberry and raising of cocoons.

It is a matter of regret, that any one should view the subject as a wild project, and say, that although it may be good business for a few years, if found lucrative, every body will engage in it, and glut and ruin the market. We wish the subject could be so presented to our fellow citizens, as to impress them with the importance of examining the subject, on the broad scale of greater national importance than any agricultural subject ever yet pursued.

But if doubts and fears shall remain, we only ask them to commence the culture of the mulberry on a limited scale for a few years, not to interfere with any other agricultural pursuit. Let the experiment be made upon some of our almost barren and useless portions of poor, dry, stony and gravelly soil.

It may be asked, if the silk business can be made more profitable than almost any other crop, why not take the best and richest land? A fair question indeed. But such land is not the best for the *Chinese mulberry*, and it would be desirable to have every patch of poor, waste, dry land devoted to some useful purpose.

[From the Plough Boy.]

CAUSE OF THE DECAY OF PEACH TREES.

Dear Sir,—In pursuance of my promise, I now offer the discovery I have made, relative to the decay of peach trees.

The peach tree is caused to decay by the ravages of a worm, which originates from the egg of a large fly, that bears some resemblance to a wasp. This fly pierces the outer bark of the tree, above ground, and deposits an egg in the inner or green part of the bark; as soon as the worm is hatched, it makes its way downwards, between the bark and the wood of the tree.

These facts are shown by an examination of the tree, for where the worm began, the hole is small, and gradually enlarges, until you come to the worm, or the place where it made its exit; thus corresponding with what is observable in the progress of all, or nearly all wood worms.

If the worms begin a few inches above the ground, the frost sometimes comes on before it

gets far enough below the ground, and destroys it; but if the ground about the roots of the tree be covered with snow during the severe frosts, which prevents the ground from freezing deep; the worm in this case, will survive the coldest winter. In the spring, the worm commences its ravages anew; and now is the time it does the most mischief—for as soon as the sap begins to move, it oozes out in the form of gum and water from the fresh wounds made by the teeth of the worm, until it is grown, when it voluntarily leaves the tree, which it does about the last of June, or first of July. Half a dozen worms about the roots of a common sized tree, will destroy the whole tree; but if the worms are only on one side of the tree, then only one side, or perhaps a few limbs of the tree will be found dying. The effects of the worms extend from one-half to an inch on each side of its track, or hole in the bark, as I have always observed the bark to be dead for that distance; so that a worm for every inch and a half round a tree kills it all but the roots, and sometimes even these; but if the worms are scattered so as to leave spaces of two or more inches, the tree will be observed to revive after the first of July, or near that time; but if the succeeding winter is favorable to the life of the worms or the egg, the next spring the ravages are commenced anew by another generation, and the life of the tree is destroyed.

About three years ago, my attention was drawn to this subject from the almost universal decay of peach trees, in my neighborhood. You will recollect that the winter was severely cold; yet in the coldest weather then, the ground was covered with snow. All my neighbors attributed the decay of the peach trees, the following spring, to the severe frosts—but I felt doubtless, as I knew that peach trees thrive well in all parts of Canada, where it is much colder than here.

On examining some trees that were decaying, I found a quantity of gum on the ground, by the roots, and on scraping the earth from them, I found that the gum had oozed out (part of it,) under the surface of the earth. I then began to scrape away the outside bark, and soon came to the worm, and was at once convinced, from the effects I saw, that these were the cause of the trees decay; and from that time, I have carefully observed its progress.

The worm is white, similar in size, shape and color, to the common white, flat-headed wood worm. Its mouth is black, or perhaps, nearer to a mahogany color, and its progress is uniformly downwards; it sometimes begins from three to six inches above ground, but generally near the surface. and is seldom found deeper than six inches below the ground.

I have been thus particular to induce farmers to examine their trees. Wherever gum is found at the root, there the worm, or traces of its ravages will be found. And having observed that where a few trees have been standing in a yard, and the ashes of the fireplace have been thrown about their roots, or where they were overflowed with water in the winter, the trees are not affected and are alive. On observing these facts, I advised several farmers of my acquaintance, to have ashes thrown about the roots of the peach trees, every spring at least; and in all cases, the expe-

riment has succeeded—not a single instance of a worm, or death of a tree, except from external violence, has occurred among those that have been so treated.

I will now offer a few remarks as to the proper method of cultivating the peach tree, with success for bearing fruit to perfection.

1. The young trees, or sets, should never be trimmed or pruned near the ground; and if the seedlings send forth many branches from the root, they should be carefully kept to the root, and set out again (when transplanted,) in a cluster, as they come up; or branched out from seeds, and suffered to grow as they will.

2. The peach, of all others, requires an open place, clear of shade, and in a warm soil, and a soil that is tolerable dry. I have always remarked that trees bear earliest when the ground about them is tolerably compact; and a fair situation to the sun is indispensable, to give the fruit an early ripening and fine flavor; hence the custom of setting out peach trees in fence corners, and shady grounds, will always prove a source of disappointment to those who thus plant their trees, in a soil so cold as the soil of most parts of this state is found to be; and care should be taken that cattle do not bite off the limbs of the trees, nor break the bark so as to suffer the gum to escape in the beginning of warm weather, when the gum is essential to the blossoming and bearing of the tree. I do not suppose that the loss of gum, to a certain extent, is very injurious to the tree after the fruit is nearly ripe, but I have seldom seen trees bear their fruit well when the bark is broken, or pierced, so as to suffer the gum to escape during the blossoming and bearing season. Even the young peach is apt to fall off, if pierced while very young by insects, so as to suffer the gum to run out.

These are facts which point out plainly, the disposition, (if I may use the term,) of the peach tree; and if our farmers become convinced that they must suit their cultivation and care, to the habits and nature of the tree, we shall have plenty of peaches. Our climate, and much of our soil, is as well adapted to the prosperity of this, or any other fruit tree. We have had some very unfavorable seasons for the peach, and almost all other fruits; but economy and diligence, and proper care, until our trees can acquire a proper size for bearing, is all that is wanting on our part; and we will trust to a kind Providence to bring the seasons round, with their former blessings.

I have purposely avoided technical terms, that this communication may be intelligible to all who feel interested in the prosperity of the peach.

I am, sir, yours with very high esteem,
SOLOMON J. SCOTT, M.D.
To J. W. OSBORN, Greencastle, Ia.
February 18, 1836.

Extract from a letter to Major D. Gano.
Sales of Col. Hare Powell's stock of improved short horns, on the 23d April, 1836.
Mandane, 9 years old, imported, white, to Mr. White, of Richmond, Ky., \$600
Mandane, the 2d, 2 years old, white, to Mr. Gratz, Kentucky, 510

Belina, the 2d, 5 years old, light roan, do. 560
 Belina, the 3d, 8 months, red and white, }
 dam Belina, by Bertrand the 2d, to Mr. } 300
 Neff, for Maj. C. S. Clarkson, Ohio.
 Ohio, bull 17 months, white, dam Man- }
 dane, by Mercutio, &c. to Mr. Neff for } 700
 Major Clarkson, Ohio,
 Bertrand, the 2d, 2 years old, red and white, }
 to Mr. Kruses, } 500
 Desdemona, the 2d, 2 years old, red and }
 white, to Mr. Martin of Ky. } 480
 Bertram, the 4th, Calf, to Purvis, a colored }
 man, } 260
 Virginia, the 2d, to Mr. Gratz, Ky. } 500
 Virginia, the 3d, 2 years, to Purvis, } 440
 Florinda, the 2d, 3 years, to Mr. Gratz, Ky. } 590
 Lubin, Calf, to Mr. Morgan, } 205
 Denton, the 2d, 10 months, to Dr. Thomson, } 510
 Burletta, 3 years, to Mr. Martin, } 340
 Ruby, the 2d, 3 years, to Mr. Gratz, Ky. } 290
 Defiance, 9 months, to Mr. Barney, } 290
 Two or three others inferior, all Mr. Powel's }
 stock except one or two.

It will be remembered that the finest cattle exhibited by Mr. Sanders at our last fair, were of the Powel improved short horns. By the above account of sales we observe that our farmers will be indebted to the enterprise of Major Clarkson, for an opportunity of breeding from a choice animal of that valuable stock.—*Farmer & Mechanic.*

MARYLAND HORTICULTURAL SOCIETY.

Saturday, May 21. The following articles were exhibited, viz:

By Mr. Peter Nantz, 3 crooked neck winter squashes of last year's growth. They were very fine. [It is not generally known, that this most excellent of all the Squash or pumpkin tribe, is capable of being kept perfectly fresh and sound any length of time desired. They have been so kept for *four years*, and were as fresh and firm at the end of that time as when they were taken from the vine. All that is required to preserve them, is to hang them up in a dry room where they will be secure from frost.]

By Mr. Thos. Dixon, 2 heads of Lettuce, and 2 Cauliflowers.

By Mr. James Stranoch, two heads of Cauliflowers, 1 bunch of Asparagus, and 1 head of Lettuce.

By Mr. Zebulon Waters, Amaryllis Johnsonensis, with 5 fine flowers, and 2 boquets of cut flowers.

By Mr. John Feast, a fine collection of cut flowers, comprising about 80 varieties.

By Mr. Edward Kurtz, a bouquet of cut flowers and two varieties of Ranunculus.

By Mr. Sam'l. Feast, 15 varieties of new China roses, 7 varieties of new Scotch roses, 5 varieties of Peony, Cactus, Speciosus, (with upwards of 100 flowers expanded) and cactus, speciosissimus in fine bloom, and several boquets of cut flowers, comprising a beautiful collection.

The premium was awarded to Mr. Samuel Feast for his fine collection of cut flowers.

GIDEON B. SMITH, Cor. Sec'y.

Saturday May 28th, 1836. The following articles were exhibited, viz:

By Mr. Jas. Stranoch, 2 doz. early kidney potatoes, very fine for the season.

By Mr. Thos. Dixon, half peck of garden peas, fine, and 1 head of cauliflower.

By Mr. Ed. Keene, 2 bunches of asparagus, very fine.

By Mr. Zeb. Waters, alstræmeria pelegrine, calceolaria pinnata, and several large boquets of cut flowers.

By Mr. John Feast, double white rocket with 11 flower stems well set with bloom, rosa hybrida latoutorelle, perfecta, kingsessing champagne rose, Washington carnation, and a collection of cut flowers.

By Mr. Samuel Feast, cactus ackermanii, and 84 varieties of roses, with a fine bouquet of cut flowers.

By Mr. Edward Kurtz, cactus ackermanii in fine bloom, two specimens of South American amaryllis, and 2 boquets of cut flowers.

The weekly premium was awarded to James Stranoch for his kidney potatoes.

GIDEON B. SMITH, Cor. Sec'y.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured.....	pound.	16	17
Shoulders,.... do.....	"	12	
Middlings,.... do.....	"	13	13½
Assorted, country,.....	"	11	
BUTTER, printed, in lbs. & half lbs.	"	20	37½
Roll,.....	"	20	25
CIDER,.....	barrel.		
CALVES, three to six weeks old.....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.		
CHOP RYE,.....	"		1 87
EGGS,.....	dozen.		12
FISH, Shad, No. 1, Susquehanna,.....	barrel.	10 00	
No. 2,.....	"	9 50	
Herrings, salted, No. 1,.....	"	3 59	
Mackerel, No. 2,.....No. 3.....	"		5 50
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....par
 Branch at Baltimore,.....do
 Other Branches,.....do

MARYLAND.

Banks in Baltimore,.....par
 Hagerstown,.....do
 Frederick,.....do
 Westminster,.....do
 Farmers' Bank of Mary'd, do
 Do. payable at Easton,.....do
 Salisbury,.....5 per ct. dis.
 Cumberland,.....do
 Millington,.....do

DISTRICT.

Washington,.....do
 Georgetown, } Banks, 1.
 Alexandria, }
 PENNSYLVANIA.

Philadelphia,.....do
 Chambersburg,.....do
 Gettysburg,.....do
 Pittsburg,.....do
 York,.....do
 Other Pennsylvania Bks. 1½a2
 Delaware [under \$5],.....3a4
 Do. [over \$5],.....2a3
 Michigan Banks,.....5a
 Canadian do.....5a

VIRGINIA.

Farmers Bank of Virginia,.....do
 Bank of Virginia,.....do
 Branch at Fredericksburg do
 Petersburg,.....do
 Norfolk,.....do
 Winchester,.....do
 Lynchburg,.....do
 Danville,.....do
 Bank of the Valley,.....do
 Branch at Romney,.....1
 Do. Charlestown,.....do
 Do. Leesburg,.....do

WHEELING BANKS,.....3½a4

Ohio Banks, generally 3a4

New Jersey Banks gen. 1½a2

New York City,.....½a

New York State,.....2½a3

Massachusetts,.....2a2½

Connecticut,.....2a2½

New Hampshire,.....2a2½

Maine,.....2a2½

Rhode Island,.....2a2½

North Carolina,.....3a3½

South Carolina,.....3a3½

Georgia,.....3½a4

New Orleans,.....5

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM.	TO.
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs.	8 00	8 50
CORN, yellow,.....	bushel.		80
White,.....	"		75
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	18½	20
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.		1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	7 75	8 25
Do. do. baker's,.....	"	7 50	8 00
Do. do. Superfine,....	"	6 87	7 12
SuperHow. st. in good de'd	"		6 50
" wagon price,.....	"	6 25	
City Mills, extra,.....	"		7 00
Do.	"	6 50	6 62
Susquehanna,.....	"	6 50	
Rye,.....	"		
Kiln-dried Meal, in hhds.	hhd.		19 50
do. in bbls.	bbl.		4 37
GRASS SEEDS, red Clover,.....	bushel.	5 25	
Timothy (herds of the north)	"		3 25
Orchard,.....	"	none	
Tall meadow Oat,.....	"		
Herds, or red top,.....	"		
HAY, in bulk,.....	ton.		20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,....	"	7	8
HOGS, on the hoof,.....	100lb.	9 00	9 25
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"		
OATS,.....	"	40	45
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,....	ton.	4 00	4 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	
Susquehanna,.....	"		92
TOBACCO, crop, common,.....	100 lbs	4 75	5 00
" brown and red,....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wrappery, suitable	"		
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 25	5 00
" ground leaf, ...	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.		1 41
Red,.....	"	1 30	1 38
WHISKEY, 1st pf. in bbls.	gallon.	38	
" in hhds.	"	35½	
" wagon price, } " } " }	"	34	
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	
To Wheeling,.....	"	1 50	
WOOL, Prime & Saxon Fleeces,...	pound.	55 to 68	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,....	"	45 48	26 28
One half do.....	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,.....	"	38 40	23 24

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Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

CLAIRMOUNT NURSERY, May 25th, 1836.

CATALOGUE
OF DOUBLE DAHLIAS FOR SALE.

6 Inwood's Crimson Multiflora, flowers early, 5 ft.	75
5 Jane Insurmountable, superb yellow, fine shape, 7 feet,	50
12 Picta Formosissima, beautiful scarlet, striped with orange, 6 feet,	50
4 National Guest—new and very fine,	2 00
4 Rose d'Amors, inner petals white, 7 feet,	75
8 Marshal Landgreve, a Rose Lilack, fine, 7 ft.	50
3 Widnal's Granta, deep claret, splendid flower, 5 feet,	1 00
3 Delicate Blush,	50
9 Richardson's Alicea, white, with deep pink edge, 4 feet,	75
6 Levick's Incomparable, scarlet, tipped with white, 6 feet,	1 00
2 Lady Gray, pink and white, fine, 4 feet,	75
6 Prince of Orange, fine orange, 5 feet,	60
12 Jane Brosa Sinea, deep red, 5 feet,	50
2 Neptune, a beautiful Lilack, a magnificent full flower, 4 feet,	75
6 Beladona, purple and white, fine,	50
3 Shanel's Renuncules,	50
4 Buckhanan's Campacta, dark crimson, fine shape, 4 feet,	75
2 Lord Brougham, superb crimson, 5 feet,	75
3 Marchioness of Lotham, fine crimson, good shape and color, 4 feet,	75
2 Widnal's Plutos, a fine rose lilack, 4 feet,	1 00
2 Sulfuria exolata, fine yellow,	50
2 Alba Fimbriata,	50
1 Deneres Queen of the whites,	1 25
1 Widnal's Perfection, fine rosy crimson,	1 00
2 Lord Derby, superb deep crimson, full flower, 5 feet,	1 00
2 Henry the VIII., a deep dark purple, most black, 5 feet,	1 00
2 Widnal's Golconda, white penciled with lilack, 6 feet,	75
3 Lord John Russel, a globe crimson, 5 feet,	1 00
1 Pluto, dark purple,	1 00
2 Crus Purpurio Varigata,	1 00
2 Countess of Liverpool,	1 00
2 Widnal's Village Maid,	2 00
Many others.	
I will take \$6 for a dozen of my selection, and will send superb sorts, not having any bad ones.	

FIELD SEEDS.

NEW AND RARE SORTS.

THE Subscriber is just receiving ADDITIONAL SUPPLIES of European and other FIELD SEEDS, among which are many NEW AND RARE KINDS, and well adapted to suit the MIDDLE and SOUTHERN STATES, viz:

PERENNIAL and ITALIAN, RYE GRASS, these grasses, particularly the former, are extensively cultivated in Europe, are generally mixed with clover; fine pasture, rich moist meadow land suits them best. Sow 1 bushel to an acre.

SAINFOIN or ESPERSETT, particularly adapted to a calcareous or chalky soil, considered in England, one of the most valuable plants: farmers not possessing calcareous soils, may succeed with this grass by dressing their lands with clay marl. This grass would no doubt flourish well in our most southern states.—3 to 4 bushels of seed should be sown per acre.

FIELD BURNETT, this grass is well suited for sowing on high, gravelly soils; fine sheep pasture—sow 2 bushels per acre.

SCARLET CLOVER, or TREFOIL.—*Trifolium Incarnatum*. A valuable early grass, and fine for soiling in summer, or supplying food when other grasses are winter killed. If sown in the fall it can be cut three weeks earlier than common clover, or if sown in the months of April, 50 days after sowing. From its rapid growth it is likely to become a valuable acquisition to the farmer—20lbs. is required to seed one acre. Also for sale a few pounds YELLOW TREFOIL.

WHITE DUTCH CLOVER.—Fine pasture, and for lawns. Its increase is very much facilitated by a top dressing of ashes—sow half peck per acre.

BLUE GRASS, GREEN GRASS, &c.—Suitable for e, ing fine green swards, and sometimes sown for sturpam and on meadow land—sow 1 to 2 bushels per acre.

SWEET SCENTED VERNAL GRASS.—Particularly valu-

able for pasture, very early; proper situation well drained meadow land.

MILLET.—The stalk of this plant resembles those of Indian corn, though much smaller, principally valuable for green fodder, 2 good crops can be raised during the season, the first to be sown about the 20th May, on a rich light soil—half a bushel of seed should be sown per acre, if fodder is the object, and less if for seed.

ENGLISH & POLAND OATS—several sorts weighing 44 lbs. per bushel, cultivated as the common kinds.

SKINLESS OATS.—The grain naked like wheat, should be sown about 15th April. A product of 80 bushels, is said can be produced from one acre, and each bushel is worth three times more than the common oats—price 50 cts. per lb.

SPRING & WINTER VETCHES or TARES.

LUCERNE or FRENCH CLOVER—Very valuable, especially for soiling, bears cutting several times during summer, requires a deep rich loam, not wet. Stands the severest winters, and drought does not effect it—20 lbs. is sufficient to seed one acre, if sown broad cast—half a bushel of rye or oats if sown with 20 lbs. of seed will effectually protect the tender plants from weeds.—See Am. Farmer.

GAMA GRASS.—This last but not least in value, is a strong coarse grass, indigenous to all the Southern States, but has been but partially cultivated, its product is immense. Animals eat it with avidity. An ounce of seed which contains 260 kernels, will by being planted and subdivided three seasons in succession, enable the culturist to set out a meadow of 53 1-2 acres, which will last him an age—price 50 cts. per ounce.

ALSO

MANGOLD WURZEL, or large pale red Beet; RUTA BAGA; LARGE YELLOW TURNIP; ROUND & LONG CROOKED PUMPKIN; FIELD PEAS and BEANS; COW CABBAGE, or *Cacaesnam Kale*, a fine green fodder for cattle; Altringham Carrot; MERCER, EARLY KIDNEY & EARLY ROUND POTATOES.

For sale by

R. SINCLAIR, Jr.

June 1

Light, near Pratt st.

FARMERS' REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25, 1830.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving Bottoms \$30, with extra pair of knives.	\$33
11 " Permanent Bottom 23, do do do	31
13 " Permanent Bottom 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " Revolving Bottom 50, do do do	56
20 " Large size fitted for horse-power 80, do do do	90

His variety of Ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime

quality, and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass Seed of superior quality.

mh 22—eo2m

JONATHAN S. EASTMAN.

OXEN WANTED.

THE EDITOR OF THE FARMER AND GARDENER, Baltimore, Md. wishes to purchase 4 pair of Eastern OXEN. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective Oxen, price deliverable at Baltimore, and time when they can be delivered there.

May 24th.

4t.

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted. Wove wire for screens, fans, cellar windows, safes, &c. Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment extra castings for ploughs of all kinds, Thrashing machines, Horse powers, Mill work, window weights, &c. can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffie oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours.

Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50a75 cents, 1a\$2 each. A liberal discount will be made when 1 doz. or more are taken.

may 10

ROBT. SINCLAIR, jr.

Light, near Pratt street whf

GAMA GRASS ROOTS.

5000 Gama Grass roots will be received, and for sale about the 20th of March. By obtaining roots of this valuable grass, farmers will gain the advantage of two years over seed plantation.

March 1

ROBT. SINCLAIR.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 7.

BALTIMORE, MD. JUNE 14, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the *west side of Light, near Pratt street*, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 14, 1836.

The Honorable *Daniel Webster* has purchased 5,000 Mulberry trees, for his farm in Marshfield, Massachusetts. We sincerely hope his enterprise will prove as successful as his example is praiseworthy.

Last spring we purchased for a gentleman in Washington county of this state, from that distinguished breeder, Mr. John Barney, formerly of Port Penn, Delaware, *three cows*, and we are highly gratified to find by the subjoined extract from a letter from him, that they have proved to be entirely satisfactory.

"MARGARET'S COTTAGE,
Washington Co., Md., June 3."

Knowing that you take an interest in these matters, I beg to inform you that two of my cows, purchased through your agency, have produced fine calves—the "*Sims*," and the three-fourths Durham, the first a heifer, the other a bull. They turn out to be first rate milkers, and fully equal my expectations. Indeed I expect the "*Sims*" is the deepest milker in our county; she yields at least 22 quarts per day, besides which the *milk* is very rich, and would yield, I have not the least doubt, 15 lbs. of butter per week."

"The wheat crops in this neighborhood have almost entirely failed; the rye looks promising."

The "*Sims*" cow spoken of above, is a descendant of a Holstein cow, imported some years since by Mr. Sims, formerly of Philadelphia; the breed are remarkable for their great size and deep milking propensities.

NEW YORK AGRICULTURAL SCHOOL.

The legislature of New York recently passed an act to incorporate an Agricultural School. The capital stock of the company is to consist of \$100,000, with liberty to increase it to \$200,000, in shares of \$25 each, which is to be considered as personal property, and be assignable in such manner as the company may prescribe.

The capital of the company to be exclusively devoted to the purposes of instruction in literature and science, and improvement in scientific and practical agriculture and the mechanic arts.—The corporation is to have power to hold property to the amount of its capital, and to convey the same away.

At the first subscription to the capital stock of the company, no subscription above \$1,000 by, or in behalf of, the same individual, shall be received; *five per cent.* on each share to be paid at the time of subscribing. The commissioners have power in the event of the subscription not being all taken when the books are first opened, to receive subscriptions subsequently until the whole shall be taken, and in case more stock is subscribed than the requisite amount, the commissioners are empowered to apportion the same among the stockholders as they may deem most advantageous to the interests of the institution. There are to be 32 trustees, two of whom shall be the governor and lieutenant governor, who are to manage the concerns of the corporation.

The trustees have the power to elect the officers of the company, appoint professors, masters and agents for the school; and they are directed to purchase a farm of about 500 acres of land, either contiguous to or near the Hudson river, and as nigh to the city of Albany as may be convenient, and shall cause to be erected thereon such buildings as may be suitable and necessary, and make all such other arrangements as may be proper for the future business of the corporation. The corporation are bound to make it an indispensable requirement, that the professors, teachers and pupils, shall, unless prevented by sickness or other reasonable cause, occupy themselves for at least one half of the time the school is in session between the months of March and December, either in the practical agricultural business of the farm, or in the laboratories or mechanics' shops to be connected with the school.

The corporation is never to declare a greater dividend than 5 per cent. All surplus profits over that sum, to be expended in additions or improvements to the farm, buildings, library, apparatus, or other necessary establishments connected with the institution, or in reducing the price of tuition at the same.

Three visitors are to be annually appointed, whose duty it shall be to make a report to the legislature at the commencement of its sessions each year, of the state and condition of the school.

To shew our readers the importance that is attached to this new institution, and the moral certainty of its being carried into successful operation, we will insert the names of the individuals who constitute, under the law, the *nucleus* of the corporation. It will be seen that they are among the most distinguished gentlemen in the state of New York. They are, William L. Marcey, Jno. Tracy, Jesse Buel, Stephen Van Renssalaer, Hy. Bates, Gideon Lee, Joab Center, John P. Beekman, Cornelius W. Lawrence, Philip Hone, Benjamin Knowler, Gouverneur Ogden, Erastus Corning, James Wadsworth, David E. Evans, Hiram Pratt, Walter Cunningham, Gilbert O. Fowler, Nathaniel P. Tallmadge, Nicholas Devereux, Anthony Van Bergen, Garrit Wendel, Archibald McIntyre, Thomas D. Burrell, John Greig, Thomas W. Olcott, Ziba A. Leland, George P. Oakley, John Delafiels, Edward P. Livingston, John Townsend, and Lewis F. Allen. We hazard nothing in saying, when such men become the sponsors for an institution, that there can be no question as to the certainty of its succeeding; the influence which their high character carries with it, is at once a guarantee to the public that far more elevated considerations than those which obtain in the possession of lucre, enter into the motives of the friends of the measure—for in the motives of such men, personal aggrandizement cannot enter—the promotion of the cause of husbandry, the advancement of the mental and domestic relations of those engaged in it, and the furtherance of the science of agriculture, by calling to its aid the youths of the state, and unfolding to their ambition those lights which shed so much lustre upon the paths of its followers—these are the *alpha* and *omega* of their aspirations, and in the purity of their intentions—in the laudableness of their views—we have at once the bond and fulfilment of its conditions.

We last year called the attention of the agriculturists of the United States, to the importance of organizing Agricultural Societies in each of the several counties in the nation, and endeavored to

impress upon them the deep and profound consequence it was to the interests of those engaged in the cultivation of the earth, that there should be established in each state of the Union, at least one Agricultural School; and we would again respectfully direct their attention to the same subject. Agriculture, like all other sciences, is a progressive one; new lights are almost daily pouring in upon us in every direction, and if their benefits are to be made profitable, some extra means must be taken to enlighten the minds of those engaged in its pursuits generally; for unless the diffusion of knowledge should extend to all alike, it will act by its inequality as a tax upon agricultural labor, instead of proving a blessing, as all such things should. We have often taken occasion to illustrate the tenacity with which we all adhere to the customs of our childhood, and how difficult a matter it is to introduce any improvement to popular favor. This difficulty has its foundations laid in the best virtues of the human heart, and is therefore the more difficult of eradication. To cherish the ways of our fathers, and to follow in their footsteps, have always been esteemed as debts due from us to those who nurtured us in the hours of infancy—has been hallowed as the offsprings of filial piety. Thus entrenched in the holiest affections of the heart, it ceases to be a matter of surprise that a system of husbandry which has reduced the rentals of hundreds of the proprietors of the soil to a mere nominal sum—which has despoiled their fields of their capacity to produce—and driven their children from their homes—We say it ceases to be a matter of surprise that under such circumstances, there should be such disinclination on the part of farmers and planters to depart from those modes of culture that had taken field after field from cultivation, and made such deplorable inroads upon the incomes of the husbandmen of the old states. But though it has ceased to be a matter of surprise, it is nevertheless an object of vital moment, that some plan should be devised to introduce better systems of culture.—How this is to be effected is the question for consideration. So long as the old modes of cultivation are handed down from father to son, without any chance of ever challenging the mind to halt in its course sufficiently long to *think*, whether a better one might not be substituted, so long will the present disastrous consequences continue to flow, to the great detriment of the landed interest. Can a change be effected? We answer, yes. The mode is as simple as it will prove salutary. Let Agricultural Societies be established in every

county in the country, a general Agricultural Society and an Agricultural School in each state, where the science of agriculture, *as a science*, shall be taught, both theoretically and practically; at which schools a certain number of indigent youths should be instructed gratuitously, while those who are able should be made to pay for their instruction. The gratuitous scholars should be selected from *every part* of the respective states, so that when they return to their homes, what they may have learnt may be spread far and wide, the influence of their example be felt, and their knowledge have the greatest possible chance of being extensively known. By this means, although we may not be able to correct the erroneous practices of the present generation, the injury which would result from their being entailed upon the succeeding one may be obviated, by laying a timely groundwork for the dissemination and inculcation of sound physiological principles.

Although the value of *lime* as a corrector of the bad qualities of soil, and as an agent of melioration, through its stimulative properties, was known and used as such centuries ago in Europe, yet its virtues in this respect, if we are to judge from its non-use, we would say were not known in this country, until comparatively a few years since; and even now, its application is greatly restricted.

Again, the meliorating properties of Plaster of Paris, strange as it may seem, are but partially availed of, and indeed its benefits have been literally withheld from many districts of country where it could have been used with the greatest advantage, owing to the absurd opinion which obtained currency, that it would not act beneficially on fields in the vicinity of tide water. The specific virtue of plaster, as understood, is its power of attracting moisture from the atmosphere. Now if this be the cause of its fertilizing qualities, we would ask, why should it not exert its good effects in the vicinity of rivers, as well as in the interior? Does not vegetation suffer from drought in the vicinage of the former, as well as in the latter? Then why should its virtues be active in the one place, and quiescent in the other? No one can give a reason in justification of so absurd a theory as the one we allude to, which would stand the test of physiological investigation; for heat, light and moisture, are the great elements which comprise the cause of all healthful vegetation, and these are needed as much in one place as in another; but the *dictum* had gone abroad, that plaster would not act in the

neighborhood of tide waters, and without common sense to sustain it, the opinion prevailed, and prevailed too, without being subjected to the least rigid scrutiny, or being submitted to the test of experiment, fairly and fully made. Some one had applied it on his fields adjacent to rivers, and because miracles were not instantaneously wrought—because a field which had been literally *killed*, did not like Aaron's rod, speckle all the flock—did not become at once restored to its original fertility, why forsooth, it was utterly worthless. We never have been believers in such faith. We never have quarrelled with any of the fructifying agents, because they did not, instantly on trial, restore the earth to its pristine integrity. We always thought that that which required a *series of years* to deprive it of its powers of fruitfulness, would take *some time*, at least, to bring it back again to its former state of productiveness; and have, therefore, always felt called upon to look calmly into the why and the wherefore of any subject under consideration, before we made up our opinion. "Error of opinion may be tolerated where reason is left to combat it," is the sentiment of one of the great men of the best age of our country, and all we are now asking is, that this same sentiment may be carried out for the benefit of agriculture—we ask that reason may be permitted to combat the prejudices of former times, and that no one should pursue a custom, no matter how sanctified by years, unless it be founded on common sense, and be productive of good.

LOSSES FROM THE LATE RAINS—PROSPECTS OF THE CROPS, &c.

We understand from a gentleman recently from Delaware, that the farmers in the neighborhood of Delaware City and Port Penn, have suffered severely by the late rains. The Delaware river rose so high as to carry away the embankments on its margin and overflowed the marshes, or reclaimed lands on the St. George's Creek. Mr. Kennedy, an enterprising and wealthy farmer, had 180 of his sheep swept off and drowned; Mr. Exton another wealthy farmer lost several of his flock; Mr. Blandy, an agriculturist of distinction and large means, who also resides in the same vicinity, has sustained a very heavy loss in hay and grass, and will have to part with more than half his stock in consequence of the inundation of his pastures.

These losses are all in one neighborhood, and we fear there is too much reason to apprehend that the injury has extended all along the course of the river Delaware; if so, the amount of loss

will prove most heavy indeed, not only to the individual sufferers, but to the cities of Philadelphia and New York, whose markets are annually supplied with large numbers of beef-cattle from the luxuriant marshes which border on that turbid stream.

Cotton Crop.—The Charleston Mercury of the 4th, says: Ruinously immoderate rains have prevailed throughout the interior of the south and south-west, and a great portion of the cotton region has been deluged. The injury has been more partially felt in S. Carolina, than in the interior states, although immense loss will accrue from the rise in the Congaree, and other of our streams. This with the war in Texas, and the Indian difficulties, interrupting the plantation business at a critical period, will greatly diminish the cotton crop of 1836. The effect is already felt in our market, where large orders have been receiving during the last ten days.

Camden, May 31.—The river is so high that the mails cannot get across, every thing on the river is gone, the freshet is as high as it ever has been."

A private letter from Camden, under same date, says, the crops as far as we can hear are generally destroyed, and it is too late in the season to replant cotton—we have not heard from the Pedee or Congaree, but presume that it is equally as bad as the Wateree.

Rice Crop.—A gentleman who arrived at Charleston on Saturday morning, whose plantation is on Black river, about twenty miles from Georgetown, states that the injury to the Rice crop is expected to be most extensive, from the rise of tide on the Santee, Wateree, and Pedee rivers. He noticed on his way down one break on a plantation of 100 feet. On Black river there were a number of breaks. The tide rose 18 inches in an hour, has been rising since from 3 to 4 inches every night, and has been higher than it was during the gale of 1822. All the plantations in that vicinity are under water.

Letters from Columbia, June 1, and Vicksburg, Miss., May 3, give similar accounts as the above. The letter says—

The whole country is inundated with water—several of the plantations above this place have already been abandoned by the owners, and much damage will be done to the crop, and heavy losses sustained by them on the Mississippi river. Many men that have heretofore had the reputation of being wealthy will be bankrupt by it.

We regret to learn, that wheat fields in almost every direction, present a most melancholy prospect—the worm has been busy with the young stock, and decay is so obvious, that the whole harvest of many immense fields will scarcely return the amount of seed used in sowing. This intelligence comes to us from many counties in the vicinity of our city, from Delaware state, Maryland, and different parts of Virginia.

Indian corn has been greatly injured by the recent wet weather—is it too late to replant?

The rye which was in blossom must also have suffered from the easterly winds and protracted moisture.—*U. S. Gaz.* —

The rainy weather still continues. We have had, with little variation, now and then only a short interval of sunshine, nearly three weeks of cloudy, drizzly, rainy weather. The earth is perfectly saturated, the streams high, corn and much of the vegetation and shrubbery assuming a yellow, sickly appearance.—*Hagerstown Torch Light, June 9.* —

The Farmer, published at Jonesborough, Tennessee, observes:

"We regret to state, that the ravages of the Hessian fly have this spring proved very destructive to the wheat in this section of the country. We are informed that many fields have been ploughed up and planted in corn, and it is certain the crop will be greatly diminished. Until a short time since, the wheat crop was unusually promising. So far, the season has been quite favorable to the corn and oat crops."

The Fincastle (Va.) Democrat of June 3, thus sums up the prospects of the wheat crop:

The ravages of the fly, of which our farmers generally complain, and which they represent as very extensive, are not more destructive with them, than with the farmers of the adjoining, and some of the lower counties. The Staunton Spectator says, the fly is injuring the wheat crop considerably in Rockbridge and Rockingham, and that there are similar complaints in Augusta. The Charlestown (Frederick county) Free Press, represents the prospect of the crop, in that county, as absolutely appalling. It says:

"The ravages of the fly have been so fatal that in many places the naked earth is presented shorn of the rich verdure which for a while covered its bosom. The late delightful rains have refreshed and invigorated other substances, but the wheat is beyond redemption."

For the last ten days the rain has fallen in torrents, and, for several days past, nearly without intermission. The Potomac rose 8 feet higher, perpendicularly, at the Big Spring Mill, than has been known for many years. The water is on Selden's Island, and considerable portions of Swim's Island; we learn it rose to the burr stones in the 2d story of Smart's mill, on Goose Creek, and was nearly up to the lower floor of the Big Spring Mill; the damage to the crops on the islands, on the river, and on the river bottoms, must be immense. In the injury to the mills, mill dams, fencing and other property on the water courses, we fear we shall have to record many very serious losses.—*Leesburg Va. Press.*

The present prospect for a wheat crop in Somerset is distressing to contemplate. Many of our farmers will not reap at the approaching harvest more than the quantity seeded last fall, whilst others will probably make about the half of an ordinary crop. Rye and oats look very well, but even these crops present a much less flattering appearance than usual.

We have not understood whether the present blighted and sickly appearance of the wheat fields, in this county, is owing to the ravages of the

fly, (so much complained of in the adjoining counties) or to the extreme severity of the winter; to the latter, we presume, however, it is mainly attributable.—*Princess Ann, (E. S. Md.) Herald, June 7.*

We stated several weeks ago, that, owing to the severity of the winter, wheat, in this and the adjoining counties generally looked very badly; and subsequent information has but too amply confirmed the statement. In addition to this, we have recently heard many complaints of the prevalence of the fly; and there is no doubt that their ravages, this spring, have been wide spread and serious. The prospect touching the crop in these counties, and we apprehend throughout the Eastern Shore, is, therefore, gloomy indeed. In Talbot, it is unprecedentedly so. There, some intelligent persons say, certain districts will not reap their seed, while others state that the aggregate product of the county will probably not exceed the quantity sown therein. Of course, into many fields the sickle will not be sent at all.

Since the above was written, the editor has passed through Talbot, nearly from its northern to its southern extremity; and judging from what he saw, it would appear that these gloomy representations are, by no means, exaggerations. Clover, grasses, gardens, &c. also have suffered much from drought, in that county.

The young corn crop has as yet reached only a low stage in its growth, and there is no adequate ground whereon to predicate a plausible conjecture as to its product, since that depends more upon future contingencies than present appearances. Yet, it may not be amiss to add, that in Talbot this crop, (though there checked in its progress by drought,) stands well, and holds forth quite a fair promise; while in this county, it looks not so well, the worm having done it considerable injury.

As to the mast and fruit generally, every thing indicates, we believe, great abundance, as well as fine quality.—*Cambridge Chronicle.*

Curing Pork.—A method for packing pork (proposed by Capt. Ingersoll, in the Vermont Farmer) is, after having cut it while-hot (i. e. as soon as possible after it is killed and dressed) into pieces of four or five inches wide, he rubs it thoroughly with fine salt and saltpetre, four quarts of the former to two ounces of the latter for one hundred pounds of meat. He then packs it in the cask as close as possible, with coarse salt; placing the skin next to the cask, and filling every part with salt. It will require some pickle, which in warm weather should be applied immediately.

By observing the above rules, pork may be reserved sweet when killed and put down in the warmest season.

His mode of preparing bacon, is to rub it thoroughly with fine salt and saltpetre; half an ounce of the latter to a leg of common size. He then puts them in a cask, and adds one gill of molasses to each leg or shoulder. He esteems the shoulders more tender and better meat than the legs. The meat should be basted with the pickle and molasses once a day for six weeks, when it may be dried or smoked.

VIRTUES OF LIME AS A MANURE.

We mentioned last week the republication of the excellent essay on this subject, by M. Puvis, in pamphlet form, and promised to give the very able introduction, with which the edition is prefaced,—from the pen of Professor Renwick, of Columbia College, New York. It will be found below and will more than repay the reader for the time devoted to its perusal; for it is in truth a most luminous paper, replete with intelligence which every farmer should be in possession of. His explanations of the constituents of soils and the mode of action of lime, upon peculiar soils, are both so plain that none who wish to comprehend them can mistake their import. For ourself we are gratified to find gentlemen of Professor Renwick's distinction putting their shoulders to the wheel in support of the cause of agriculture, as, besides the brilliant lights which are thrown out by them, the influence of their names is of incalculable value. We should not omit mentioning that the public are indebted chiefly to Jas. Wadsworth, Esq. of New York for the edition of this excellent work.

"The chemical facts and principles which are applicable to agriculture, are neither numerous nor complete. They are, however, to be found only in works on general chemistry, in which they are intimately associated with laws and phenomena of a more abstruse description, and in connection with which they constitute a science of which the most learned are still students, and to attain which in its existing form may require years of close and attentive study. The language, too, of chemistry, which, to those who study it in a regular course, serves as an artificial memory, and single words of which call up long trains of thoughts and experiment, presents the uninitiated all the difficulties of a foreign tongue.

Yet it cannot be doubted, that the practical farmer may derive important benefit from acquiring so much of this language as will enable him to understand the chemical explanation of the numerous changes which are continually taking place in the natural actions which it is his high privilege to call into his service, to direct in part, and modify in degree. So also certain chemical elements and compounds, with the properties of which he ought to be acquainted if he wish to be able to direct his practical skill with more effect, even in circumstances familiar to him, but which may be absolutely necessary, or will at any rate save waste of labor and loss of time, when the knowledge acquired by practice in one place is to be employed in a new situation, and under a change of circumstances.

It is the object of this introduction to exhibit, in such a form as may be intelligible to those who have not made general chemistry an object of study, a concise view of such of the laws and facts of that science, as are absolutely necessary for the agriculturist who may wish to improve his practice, and which are more particularly required by those who wish to avail themselves of

the knowledge contained in the subjoined essay. To do this has been found no easy task. It would be in itself difficult, but to the author of this introduction has been more particularly so, as he has for years been in the habit of imparting instruction to those whose habits of life and thoughts are as remote as possible from those of the practical farmer; persons to whom the peculiar language of chemistry is an aid instead of an impediment, and who, with ample time at their command, have an opportunity of pursuing the study of the science step by step. Fully aware of these difficulties, both general and peculiar, this attempt would not have been made, and certainly not persisted in, had it not have been for the instances of an intelligent, scientific and successful farmer, who has urged the completion of the task as an object likely to be beneficial to those, who, with perhaps equal zeal and native powers of mind, have not enjoyed, like himself, the advantages of a scientific education.

The atmosphere which surrounds our earth is the first object to which our attention should be directed. This is the vehicle of the moisture, which, whether it fall in the form of rain or dew, run in streams or issue from springs, is absolutely essential to the success of the farmer's labor. It is also, as we shall presently see, important to him on other accounts.

The greater part of the atmosphere is made up of a mixture of substances, each of which has the same mechanical properties as the whole mass. These air-like substances are known to chemists by the name of *Gases*.

Of these gases, two make up by far the greater portion of atmospheric air, and exist in it in the proportion of about 4 to 1. That which is the largest in quantity and makes up nearly 4-5ths of the whole atmosphere, is called, in the Essay of M. Puvis, by the name of *Azot*, but is more usually known in English by the name of *Nitrogen*.

This substance, although in the largest proportion, is the least important of the gases in its chemical effects. It does not aid in supporting the life of animals, nor in maintaining the burning (*combustion*) of inflammable bodies.

The part of the atmosphere which is absolutely necessary for these purposes, is called by the name of *oxygen*, and nearly makes up the remaining fifth part of atmospheric air. In its support of life it always, and in maintaining combustion often, unites with a chemical element, which is called *carbon*. This is familiarly known as forming the principal part of charcoal. In its union with carbon, oxygen forms a peculiar gas known by the name of *carbonic acid*.

Carbonic acid is always found in small quantities in the atmosphere, to which it is furnished by the breath of animals and the fumes of burning bodies. It is, when in considerable quantities, fatal to the life of animals, but is prevented from accumulating to an injurious extent in consequence of its being taken up by water; it is therefore dissolved, in proportions about equal to those in which it is formed, by rivers, lakes, the ocean, and the moisture of the soil.

Water exists in the atmosphere in the form of vapour. The great source of this vapour is the extended surface of the ocean, and it is govern-

ed by a mechanical law, by which it is continually tending to distribute itself uniformly over the whole surface of the earth. It may thus exist in as large quantities over the surface of the driest land as over that of the ocean itself. The tendency to equal distribution is continually counteracted by the changes in the sensible heat (*temperature*) of the atmosphere, and of the surface of the earth, which follow the alternations of day and night, and the vicissitudes of the seasons. By these alternations and changes, the vapour is caused to fall (*precipitated*) in the form of rain, snow, hail, dew, or white frost, according to circumstances. As such changes of temperature are more frequent on the land than on the ocean, the water which falls on the former in either of these forms is greater in quantity than that which falls on equal surfaces of the latter. Thus by a wise and benevolent Providence, the water of the ocean is continually furnishing vapour, which is precipitated on the land for the support of vegetation and the supply of springs, and whose excess is poured back into the ocean in streams and rivers.

Water has been found by chemists to be a compound substance, made up of two elements. One of these, which forms 8-9ths of its weight, is the gas already mentioned under the name of oxygen; the other, a peculiar gas, known by the name of *hydrogen*.

Hydrogen, when free, is the lightest of all known bodies, rising and floating in atmospheric air; it not only combines with oxygen, to form water, but with carbon to form a great variety of compounds—gaseous, liquid, viscid, and solid. It also combines with nitrogen, and forms a gas known by the name of ammonia, which is well known by the peculiar smell it gives to spirits of hartshorn (*liquid ammonia*).

Hydrogen also combines with sulphur, forming a gas known by the name of sulphuretted hydrogen; this exists in the atmosphere, but in such small quantities as only to be detected by the nicest chemical tests. It combines in like manner with phosphorus, forming phosphuretted hydrogen gas, whose presence in the air is occasionally perceptible.

Oxygen, as we have seen, unites with carbon, to form a gas which we have called carbonic acid.

This receives the latter part of its name from its similarity in properties to an extensive class of compound bodies, known by the name of the *acids*. The greater part of these, like carbonic acid, are combinations of inflammable bodies with oxygen. The most important of these in reference to our present object, are the sulphuric and phosphoric acids; named from the two substances (sulphur and phosphorus) which are their bases. Muriatic acid may also be mentioned here although its composition is of a different character. Oxygen unites with other bodies to form a class of compounds known under the name of *oxides*.

The acids unite with earths, alkalis, and metallic oxides, to form a class of compounds known under the general name of *salts*.—These are named from the two substances which enter into their composition; thus, the salt formed of sulphuric acid and the earth lime, is called *sulphate*

of lime. The substances which unite with acids to form salts, are called the *bases* of the respective salts.

Of these bases, the alkalis, it is only necessary to know the names of two, namely, *potassa* and *soda*, and to be aware that their distinctive properties, are: to possess an acrid taste, a caustic operation, to render oils capable of mixing with water, and to neutralize the properties of acids.

The earth which the chemists call by the name of *silex* or *silica*, is found almost pure in flint and rock crystal; it is also almost pure in sharp colourless sands, and is by far the larger part of sands of every description. So far as the farmer need know its properties: it is hard, rough to the touch, has no attraction for water, which it permits to filter through, or evaporate from it, with the greatest ease. It is capable of uniting with the other in compounds which are called *silicates*, and is the only earth which enters into the formation of soils uncombined with the others or with other elements.

The earth which chemists call by the name of *alumina*, is so named because it is obtained by them in a pure form from the well known salt called *alum*, of which it is the basis. Its most marked characteristic is plasticity: that is to say, it may be formed into a paste with water, will then easily receive any form which may be given it, and retain that form unaltered, even by violent heat. It never exists in soils unmixed, but in intimate association, or more probably chemical combination with *silica*, it is the well-known substance called *clay*, or *argillaceous earth*. White clays are this combination nearly pure, and coloured clays often contain it with no other addition than metallic colouring matter. Clay retains the plastic property of *alumina*; it therefore causes soils to be retentive of moisture: and when they dry, make them form tough clods or crusts, similar in character to sun-dried brick.

Soils which contain *clay* are often also mixed with sand, or with an excess of *silica* in grains, which does not enter into the composition of the clay. Such a soil is less liable to form a tough crust than a pure clay, but it will require a very large proportion of sand to destroy this property altogether.

Clay mixed with sandy soils render them more retentive of moisture. Sand and clay have therefore been used as manures for each other; but it may reasonably be doubted whether all the advantage that has been anticipated by some from this process, can be realized, as such a mixture will be merely mechanical.

Loamy soils are generally said to be mixtures of sand and clay; they undoubtedly usually contain both these earths; and even sometimes a large excess of sand. But we shall give reasons for believing that loams owe their peculiar value to a combination of clay with another substance, by which a change is produced in its chemical characters.

Lime is familiarly known by the same name that is generally used by chemists. It is obtained by the aid of heat from rocks which go by the name of *limestones*. These are combinations of lime with carbonic acid, which is fixed in them by chemical attraction, but which, when driven off by heat, takes the same form as the air of the

atmosphere, or becomes a gas. This gas from this circumstance has been called *fixed air*, by which name it is often known when causing the sparkling and froth of cider and beer. The principal part of lime-stone is therefore called by chemists *carbonate of lime*. Carbonate of lime is also found in shells, both those of living animals and those which exist in the ground in a fossil state. In the former it is mixed with animal matter which is more or less separated since the death of the shell fish.

Marl, in the sense in which the term is used by chemists, is a mixture of clay with carbonate of lime. The English writers on agriculture have not observed this distinction, and the term is sometimes applied by them to a decomposed chalk, which may contain little or no clay: and sometimes to clay which contains no carbonate of lime. In fact, the name is frequently applied by them to any earthy matter found below the vegetable soil, which is capable of increasing its fertility. From this misapprehension, the substances which go by the name of *marl* in New-Jersey, Maryland, and Virginia, do not correspond with the chemical definition, but are generally beds of fossil shells mixed in various proportions with earthy and saline matters of various kinds.

Lime is a substance very different in its characters from the two earths of which we have previously spoken. When prepared by heat from any of the original forms of its carbonate, it retains their shape unaltered, but may have its colour changed, and always loses considerable in weight. It is now acrid, caustic and corrosive, and alkaline. Of these the most important is, that it unites with acids to form compounds included in the general class of salts. Of the salts of lime which are important to the farmer, the three principal are: the *carbonate*, which, as we have stated, is found in lime-stone, chalk, and marl; the *sulphate*, in which lime is combined with sulphuric acid, and which in combination with water is the substance so well known to our farmers under the name of plaster of Paris, or less familiarly by that of gypsum; the *phosphate*, which constitutes a part of the bone of animals.

Lime, when exposed to the air, attracts carbonic acid, which is always to be found in the atmosphere; it thus passes back to the state of carbonate, but in so doing gradually falls to powder, and is then said to be *air-slaked*. If slaked with water, it also falls to a powder, which still retains the caustic character of the burnt lime; but this powder, when exposed to the air, unites with carbonic acid more rapidly than when in mass.

Lime, in its caustic state, has the property of rapidly decomposing vegetable and animal substances, thus hastening the natural processes by which they are finally destroyed; or, to speak more properly, have their elements resolved into new combinations. The offensive and unwholesome gases, which are given out by this composition, are absorbed by the lime, and probably by its other compounds; but in order that either this earth or its compounds shall manifest this property, they must be in small fragments, or, which is better, in fine powder.

Wet sand and plastic clay, and those soils to

which they give their characters, also possess the property of absorbing gases; but they have this in a very inferior degree to lime and its compounds. As the gases generated by the decomposition of vegetable and animal substances form a large part of the necessary food of plants, it is obvious that a soil which contains the carbonate of lime, may retain and store them up for use, while they will be lost in soils of a different character.

Carbonate of lime may also be made a most important article in the preservation of the most valuable parts of putrescent manures, until they can be applied to the soil. In this way marl is applied to a great extent in China; the night soil of their numerous population is there formed into cakes like bricks, with marl, and thus loses its offensive smell; but when these are applied as manure to the land, they give out the gases again as they are required for the nourishment of plants. So also in Norfolk, the site for dung-hills is prepared by a layer of marl, which is incorporated with the manure from time to time, and retains the gases which would otherwise be lost.

Lime may therefore be applied in its caustic form in some cases in agriculture, for it will hasten the decomposition of animal and vegetable matters which might be otherwise inert; it will also neutralize acids, which experienced farmers well know to exist in many soils, which they in consequence call sour. But the latter purpose will be answered as well by the carbonate of lime, which may be applied as it exists in marl or shells, or as it may be prepared by grinding limestone. Caustic lime is also dangerous in its application, for it will corrode and destroy living vegetables, and hasten the decomposition of the vegetable matter of the soil to such a degree as to injure its fertility. Except upon turf bogs, and land loaded with timber not wholly decomposed, quick or caustic lime ought not to be used; but to burn lime, and then by slaking to reduce it to the form of fine powder, which is speedily carbonated by exposure to the air, is a more ready, and generally a cheaper mode of obtaining the carbonate in a convenient form, than to grind limestone to powder in mills. Yet for many of the most valuable uses of lime in agriculture, the latter method, if as cheap, would answer as well.

Lime slowly combines with the earth *silica*, and produces a compound very different in character from either. It is this, to cite a fact in proof of our statement, which gives the sharpness and solidity to ancient mortar. The carbonate of lime will serve to form this compound: and thus, when it has time to act upon sand, it renders a silicious soil more retentive of moisture; while, if applied to clay, by combining with its silicious matter, it renders it more friable; and it is to the formation of this compound, by slow degrees, that we are inclined to ascribe the valuable mechanical properties of loamy soils, and the gradual amelioration produced by the use of lime, marl, and shells, as a manure.

Besides *silica*, *alumina*, and lime, an earth called *magneisa* is likewise found in some soils. It is also, in the form of carbonate, a frequent constituent of *limestones*. This earth has many properties in common with lime; like lime it is

capable of neutralizing acids; and when deprived of carbonic acid by heat, corrodes vegetable substances. It probably also hastens putrefaction, and both it and its carbonate are capable of absorbing gases let loose in that natural process. It is, however, of little interest in agriculture, except as a part of some of the limestones which are used as manure. This, if applied in large quantities, are sometimes very injurious to vegetation; the reason of this is, that magnesia does not repossess to the state of carbonate as rapidly as lime, and therefore contains its corrosive quality long after the lime has again become mild by its union with carbonic acid. In less quantities, however, the magnesian limestones may serve as a manure, but their application requires great caution, particularly when the quantity of magnesia amounts to twenty-five per cent.

All of the simple substances we have mentioned, except perhaps the last, either separate or in various states of combination, exist in plants. The manner and character of the combination is influenced by the vital action of the plant which causes them to form compounds, often in direct opposition to the manner in which the ordinary laws of chemistry would direct. It thus happens that so soon as the plant ceases to live, these chemical laws being no longer impeded, begin to avert their influence; and if it be in such a state as will admit of the several elements acting readily upon each other, a decomposition, more or less rapid, of the vegetable structure ensues. It is a law of chemistry, that its action is always aided by the bodies being in a fluid state, and the action is often impossible when the bodies are perfectly free from moisture. Hence the direct chemical action, and consequent decomposition, takes place with greater certainty and more rapidity in green juicy and succulent vegetables, than upon those which have been deprived of moisture either naturally or artificially. The grass, if heaped up in a recent state, decomposes, and if but partially dried, is heated, and may even take fire, by the chemical action of its elements; while, if dried by exposure to the sun and air, and then laid up in a dry place in the form of hay, it is almost indestructible. A moderate degree of heat and access to air is also necessary to promote the chemical action by which decomposition is effected. This decomposition is often attended with motion among the parts; and always, if the mass has a liquid form, as in the expressed juice of vegetables, or in the steeps employed by distillers and brewers, it goes in general terms by the name of fermentation. When the vegetable matter abounds in starch, the first change is the conversion of this principle into sugar. Sugar, if thus formed, is next converted into alcohol, as it is, if previously existed in the plant. The presence of alcohol gives the liquid in which it exists the character of vinous liquors, and if these are permitted to remain in a turbid state, a farther fermentation converts them into vinegar; and finally vinegar is farther decomposed, and the vegetable matter, giving out an offensive smell, is said to putrify. If the substance be not an expressed juice or liquid steep, these several stages of fermentation ensue with rapidity, may be going on at the same time, and are some-

times so speedy in their course that no other action but the putrefactive fermentation can be detected. Animal bodies are subject to the same laws, and go through the same stages of fermentation, but the rapidity with which they run into putrefaction is even greater; still there are some cases, as in that of milk, where the vinous stage can be occasionally, and the acetic distinctly, observed. Thus, a vinous liquor is prepared in some countries from milk, and the sour taste which appears in it when kept, arises from the presence of vinegar.

In the several stages of fermentation, parts of the vegetable assume the form of gas or vapour, and are given out to the air. The gases which have been detected, are carbonic acid, a gaseous compound of carbon and hydrogen, and in some instances ammonia. The vapour is that of water, which escapes in greater quantities than it would under ordinary circumstances, in consequence of the heat with which the process is attended. If exposed to rain, soluble salts, with earthy and alkaline bases, are washed from the mass. Finally, a mass of earthy consistence alone remains, which, on examination is found to be made up of earths, insoluble salts, and carbon, being, in fact, identical with vegetable mould.

We may hence infer that the following elements exist in vegetable bodies:

1. Oxygen, developed in the carbonic acid and water.
2. Hydrogen is in the water and carburets of hydrogen.
3. Carbon.
4. Earths.
5. Alkalis.
6. Nitrogen, occasionally developed in the form of ammonia.
7. Acids remaining in the insoluble, or washed away in the soluble salts.

The chemical examination of vegetable bodies ought of course to lead to similar results. This examination has been conducted in 3 different ways.

1. With the view of discovering the nature of the compounds, called vegetable principles, which exist ready formed in plants..

2. For the purpose of discovering the chemical elements contained in these principles.

3. By the destructive action of heat, under which some of the elements are wholly separated, and others enter into new combinations.

In the first of these methods there have been detected:

I. Certain peculiar acids, of which we may cite

- (1) Acetic acid, which, mixed with water, forms common vinegar.
- (2) Citric acid, which is found in the lemon and orange.
- (3) Malic acid, which exists in the apple.
- (4) Tartaric acid, in the juice of the grape.
- (5) Oxalic acid, in the wild sorrel.

THE HOVEN.

This disease, after the long continued and drenching rains which have just subsided, may be expected to prevail more or less in every part

of the country which has been visited by them, as all the ordinary grasses, as well as clover, are greatly increased in succulence. We would, therefore, recommend the following *recipe*, from an experience in its utility, to the consideration of farmers. The disease is one which cannot be mistaken,—the distress of the animal is so apparent; its breathings so short, so loud and so difficult, as to afford at once an *index* that no one can mistake. And then the *distension* and *induration* of the sides of the animal, its indisposition to exercise, swollen eyes, wildness of stare, and whole appearance, comprise a series of symptomatic affections, which he that runs may read. When the agony becomes intense, as it will in a short time, if remedial means be not resorted to, the power of chewing the cud is lost, and adds much to the sufferings of the animal. We have thus far spoken of the effects of the disease, and will now proceed to state the curative remedies that we have found availing.

As soon as you find that your bull, cow, ox or other animal is afflicted, give him the following mixture, if two years old and upwards; if under that age one half the quantity will answer, viz.:

- 1 pint of oil of any kind,
- 1 pint of gin, or other liquor,
- 1 oz. cayenne or other pepper,
- 1½ oz. epsom or glauber salts,
- 20 grains of ipecacuanah,
- 2 oz. ginger.

The whole to be mixed in a pint of water boiling hot, the which as soon as it is cooled down to the temperature of new milk must be administered in *moieties*, at intervals of half an hour. *Let the animal be kept walking until the medicine acts freely*, and it chews its cud without difficulty; then no farther danger need be apprehended.

We succeeded in a recent case in overcoming the disease and saving a fine Durham heifer by the above prescription, after her disease had assumed a degree of violence that almost forbid hope itself.

An injection composed of:

- 1 pint of warm water
- ½ pint of molasses,
- A handful of salt, and
- 1 oz. of soap,

will serve as a most valuable auxiliary means to the above.

In 9 cases out of 10 the above treatment will be sure to succeed; but there are cases when all internal means prove unavailing, and when the knife must be used—when the paunch must be perforated—to afford relief—in such cases, let any judicious man place his thumb on the *left* hip bone of the animal, measure *forwards* one span, then *downwards* towards the flank one span, (if

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CLAIRMOUNT NURSERY, May 25th, 1836.

CATALOGUE
OF DOUBLE DAHLIAS FOR SALE.

6 Inwood's Crimson Multiflora, flowers early, 5 ft.	\$ 75
5 Jane Insurmountable, superb yellow, fine shape, 7 feet,	50
12 Picta Formosissima, beautiful scarlet, striped with orange, 6 feet,	50
4 National Guest—new and very fine,	2 00
4 Rose d'Amors, inner petals white, 7 feet,	75
8 Marshal Landgrevine, a Rose Lilack, fine, 7 ft.	50
3 Widnal's Granta, deep claret, splendid flower, 5 feet,	1 00
3 Delicate Blush,	50
9 Richardson's Alicea, white, with deep pink edge, 4 feet,	75
6 Levick's Incomparable, scarlet, tipped with white, 6 feet,	1 00
2 Lady Gray, pink and white, fine, 4 feet,	75
6 Prince of Orange, fine orange, 5 feet,	60
12 Jane Brosa Sinea, deep red, 5 feet,	50
2 Neptune, a beautiful Lilack, a magnificent full flower, 4 feet,	75
6 Beladona, purple and white, fine,	50
3 Shanel's Renuncules,	50
4 Buchanan's Campacta, dark crimson, fine shape, 4 feet,	75
2 Lord Brougham, superb crimson, 5 feet,	75
3 Marchioness of Lotham, fine crimson, good shape and color, 4 feet,	75
2 Widnal's Plutos, a fine rose lilack, 4 feet,	1 00
2 Sulfuria exolata, fine yellow,	50
2 Alba Fimbriata,	50
1 Deneres Queen of the whites,	1 25
1 Widnal's Perfection, fine rosy crimson,	1 00
2 Lord Derby, superb deep crimson, full flower, 5 feet,	1 00
2 Henry the VIII., a deep dark purple, most black, 5 feet,	1 00
2 Widnal's Golconda, white penciled with lilack, 6 feet,	75
3 Lord John Russel, a globe crimson, 5 feet,	1 00
1 Pluto, dark purple,	1 00
2 Crus Purpurio Varigata,	1 00
2 Countess of Liverpool,	1 00
2 Widnal's Village Maid,	2 00
Many others.	
I will take \$6 for a dozen of my selection, and will send superb sorts, not having any bad ones.	
	June 1

FIELD SEEDS.

NEW AND RARE SORTS.

THE Subscriber is just receiving ADDITIONAL SUPPLIES of European and other FIELD SEEDS, among which are many NEW AND RARE KINDS, and well adapted to suit the MIDDLE and SOUTHERN STATES, viz:

PERENNIAL and ITALIAN RYE GRASS, these grasses, particularly the former, are extensively cultivated in Europe, are generally mixed with clover; fine pasture, rich moist meadow land suits them best. Sow 1 bushel to an acre.

SAINEFOIN or ESPERSETT, particularly adapted to a calcareous or chalky soil, considered in England, one of the most valuable plants: farmers not possessing calcareous soils, may succeed with this grass by dressing their lands with clay marl. This grass would no doubt flourish well in our most southern states.—3 to 4 bushels of seed should be sown per acre.

FIELD BURNETT, this grass is well suited for sowing on high, gravelly soils; fine sheep pasture—sow 2 bushels per acre.

SCARLET CLOVER, or TREFOL.—*Trifolium Incarnatum*. A valuable early grass, and fine for soiling in summer, or supplying food when other grasses are winter killed. If sown in the fall it can be cut three weeks earlier than common clover, or if sown in the months of April, 50 days after sowing. From its rapid growth it is likely to become a valuable acquisition to the farmer—20 lbs. is required to seed one acre. Also for sale a few pounds YELLOW TREFOL.

WHITE DUTCH CLOVER.—Fine pasture, and for lawns. Its increase is very much facilitated by a top dressing of ashes—sow half peck per acre.

BLUE GRASS, GREEN GRASS, &c.—Suitable for forage, fine green swards, and sometimes sown for turpam and on meadow land—sow 1 to 2 bushels per acre.

SWEET SCENTED VERNAL GRASS.—Particularly valu-

able for pasture, very early; proper situation well drained meadow land.

MILLET.—The stalk of this plant resembles those of Indian corn, though much smaller, principally valuable for green fodder, 2 good crops can be raised during the season, the first to be sown about the 20th May, on a rich light soil—half a bushel of seed should be sown per acre, if fodder is the object, and less if for seed.

ENGLISH & POLAND OATS—several sorts weighing 44 lbs. per bushel, cultivated as the common kinds.

SKINLESS OATS.—The grain naked like wheat, should be sown about 15th April. A product of 80 bushels, is said can be produced from one acre, and each bushel is worth three times more than the common oats—price 50 cts. per lb.

SPRING & WINTER VETCHES OR TARES.

LUCERNE OR FRENCH CLOVER—Very valuable, especially for soiling, bears cutting several times during summer, requires a deep rich loam, not wet. Stands the severest winters, and drought does not effect it—20 lbs. is sufficient to seed one acre, if sown broad cast—half a bushel of rye or oats if sown with 20 lbs. of seed will effectually protect the tender plants from weeds.—See Am. Farmer.

GAMA GRASS.—This last but not least in value, is a strong coarse grass, indigenous to all the Southern States, but has been but partially cultivated, its product is immense. Animals eat it with avidity. An ounce of seed which contains 260 kernels, will by being planted and subdivided three seasons in succession, enable the culturist to set out a meadow of 53 1-2 acres, which will last him an age—price 50 cts. per ounce.

ALSO

MANGOLD WURZEL, or large pale red Beet; RUTA BAGA; LARGE YELLOW TURNIP; ROUND & LONG CROOKED PUMPKIN; FIELD PEAS and BEANS; COW CABBAGE, or *Cacaesnam Kale*, a fine green fodder for cattle; Altringham Carrot; MERCER, EARLY KIDNEY & EARLY ROUND POTATOES.

For sale by

R. SINCLAIR, Jr.

June 1

Light, near Pratt st.

FARMERS' REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25, 1830.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving Bottoms \$30, with extra pair of knives.

11 " Permanent Bottom 23, do do do \$33

13 " Permanent Bottom 43, do do do 48

13 " Revolving Bottom 45, do do do 50

15 " Revolving Bottom 50, do do do 56

20 " Large size fitted for horse-power 80, do do 90

His variety of Ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2-horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime

quality, and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass Seed of superior quality.

mh 22—e2m

JONATHAN S. EASTMAN.

OXEN WANTED.

THE EDITOR OF THE FARMER AND GARDENER, Baltimore, Md. wishes to purchase 4 pair of Eastern OXEN. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective Oxen, price deliverable at Baltimore, and time when they can be delivered there.

May 24th.

4t.

AGRICULTURAL IMPLEMENTS, GRASS SEEDS, &c.

JAMES MOORE, successor of Sinclair & Moore, Light street near Pratt, tenders his thanks to the agricultural community, for the liberal patronage heretofore afforded to the Maryland Agricultural Repository, and respectfully invites the attention of farmers and others, to his stock of articles now on hand, comprising a large assortment of PLOUGHS of the most approved patterns, both wrought and cast shears, and of sizes adapted to all the purposes of agriculture—also Hill side and double mould board ploughs.

Corn cultivators of different kinds, those with five wrought tines generally preferred: Harrows of different shapes and sizes.

Corn shellers, the usefulness of which has been fully attested, and the increased sales of the last year, together with the many impressions of their utility, by those who use them, give evidence of their excellence—price \$20. Subject to a discount of 5 per cent for cash payment.—Price from \$15 to \$30. Improved Wheat Fans, of different sizes.

Cylindrical Straw cutters, a superior article for cutting any kind of long forage, 20 inch boxes adapted to horse power, \$75—extra knives per set \$6. 14 inch box adapted to manual power \$45—extra knives \$5 per set. 11 inch box which has some recent improvements \$30—extra knives, \$3 per set. Common dutch straw cutters from \$5 to \$7 50.

Garden and Field Tools, such as spades, shovels, hedge shears, mattocks, grubbing hoes, pruning tools, and hoes in a variety of forms, &c. Cast steel axes, warranted. Wove wire for screens, fans, cellar windows, sa'es, &c. Cotton Gins made to order—Grain Cradles—Harvest tools in their season.

Machines for sowing clover seed, which distribute the seed with regularity over a space of 12 feet at a time.

Having an Iron Foundry attached to this establishment extra castings for ploughs of all kinds, Thrashing machines, Horse powers, Mill work, window weights, &c. can be furnished or made to order of the best quality and at moderate prices.

FIELD SEEDS.

Orchard grass, Herds grass, Tall meadow oat grass.—Timothy and Clover; also on hand a lot of Ruffle oats.—Buckwheat, Millet, Potato Oats, &c.

Retail sales mostly confined to town acceptances, or to cash for which a discount will be made on implements.

SUPERB DOUBLE DAHLIAS.



The subscriber has now the pleasure to offer to his friends a numerous collection of those splendid FLOWER ROOTS. The assortment consists of about one hundred fine varieties, embracing all the various shades and colours.

Printed directions, relative to planting and general management will be furnished to each purchaser. Price 50c 75 cents, 1a \$2 each. A liberal discount will be made when 1 doz. or more are taken.

may 10

Light, near Pratt street whf.

GAMA GRASS ROOTS.

5000 Gama Grass roots will be received, and for sale about the 20th of March. By obtaining roots of this valuable grass, farmers will gain the advantage of two years over seed-plantation

March 1

ROBT. SINCLAIR.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 8.

BALTIMORE, MD. JUNE 21, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 21, 1836.

The article under the head of "British Agriculture, &c." we particularly commend to our readers. Its statistical as well as historical facts, connected with husbandry, are really of passing interest.

THE CROPS, &c.

The Herald of the Times published at Elizabeth city, North Carolina, has this paragraph:—

The Rain and the Crops—For three weeks, scarcely a day has passed without more or less rain. A gentleman who has had an opportunity of observing during a ride of twenty miles in this county, informed us this morning, that the crops of indian corn and wheat are literally ruined. That if the balance of the season should be as favorable as could be wished, there will not be a half crop raised—One farmer states that there was water enough in his field, if it had been dammed up and made to operate upon a mill to grind a hundred barrels of corn. The wind has generally prevailed from the eastward and the tide has been unusually high.

A letter to the editor of the Farmer and Gardener from a gentleman of Albany, states that the corn in that quarter is very backward. That that which was planted from the 12th to the 25th May was pretty nearly all destroyed; part by the drought, and part by the long cold rain. Those who planted at the close or just after the storm were successful, it being now up and doing well. He further states that some complaints have been made of the grub and wire worm, as well as that the corn did not come up, some attributing it to the quality of the seed; but those who planted from the same seed later make no complaints, for theirs came up finely. Barley, oats and grass look well and bid fair for a great crop.

The editor of the U. S. Gazette says:

While we have to regret the great injury sustained in the grain fields in this part of the state, it is gratifying to learn that in the west there is a brighter prospect. The editor of the Pittsburgh

Advocate, who has made a tour of his neighbourhood, says—"The late showers, although rather too frequent and too cold to do the corn crops much good, have revived the fields of small grain to an astonishing degree—We do not recollect to have ever seen the grain further advanced, thus early in the season, than it now is in Washington county. The farmers anticipate excellent average crops, and we, good prices, for the product of their labor."

The Lynchburg Virginian states that the papers in various parts of the country, speak of the injury which the growing wheat crop has sustained from the fly.

The Lexington Gazette says:

"The wheat in some parts of our county is very unpromising. The fly is mowing it down."

The editors of the *Chronicle* give the following as the result of their own observation in the upper part of Maryland, and we will barely remark that it corresponds to the letter with our own private advices from the same portion of our state:

The Crops—We observe that some of our contemporaries are disposed to give but little credit to the universal and wide spread complaint of the failure of the Wheat crops. We can assure them, that so far as the upper part of Maryland is concerned, the cry has not been raised without ample reason. The hessian fly has, in many places, not only injured, but totally destroyed the wheat in fields, which we have heretofore been accustomed to regard as unfailing in their product. We have ourselves, within the last 10 days, seen the plough engaged in turning under the sod where, two months ago, the farmer hoped, that a few weeks hence, he would employ the sickle. Many seeds sown last fall in wheat have been planted in corn and buckwheat, and these latter, we are pleased to learn, present a fair prospect of yielding a generous harvest.

The *Baltimore Patriot* believes the present wheat crop will be the shortest for twenty years; but inclines to the belief that the destruction will not be so universal as have been anticipated, and gives the subjoined paragraph from the Cincinnati Gazette, as an offset to those on the gloomy side of the prospect, and the sagacious editor thinks it may probably be a little on the other extreme.

[From the Cincinnati Gazette, June 11.]

Crops—The newspapers are pouring in upon us doleful accounts of the wheat crops. This is a regular story of every season—a town story told by those who know so little upon the sub-

ject, as to assert, that the deep snows of winter have destroyed the wheat!! Whatever the drought of the two last weeks of April, and the two first weeks of May, may have done of injury to wheat, the wet weather of the latter half of May has restored. The trade begin early, but Providence pays no regard to their speculations. When was there a great and general failure of the agricultural products of any country? The whole season of 1836, thus far, has been favorable to the husbandman. Croakers there must be, as well as speculators. But neither can regulate the rains, or the dews of heaven. It is said, that now-a-days, landmongers, of all characters, pay for editorial puffs, as for advertisements. The editors who drive this trade, may as well trade in desperate crops. Any thing for a '*con-si-de-ra-ti-on*.'

We heard it stated the other day by a gentleman of undoubted veracity, that a gentleman of Talbot county on the Eastern Shore of Maryland, whom he named, had written him word, that out of fifteen large fields which he had in wheat, but one of the them, from present appearances, would be worth cutting.

The statements which are made in the various paragraphs comprised in the annexed article, present a melancholy picture, and we are constrained to believe a true one, of the condition of the growing crops in the middle states. In regard to Maryland, and the adjacent parts of Pennsylvania and Virginia, the representation of the ravages committed by the Hessian fly is but too well verified by reiterated private and printed accounts.—*Balt. American*.

From the Philadelphia National Gazette.

The following is extracted from the Commercial List and Philadelphia Price Current of Saturday the 11th inst. Later advices than could have been possessed by the editor of the Price Current, at the date his remarks were composed, mention further advances in wheat, &c. in the English Corn Markets.

The coming Crops—From various parts of the country it is now ascertained, that the Wheat crop has sustained considerable injury, and in some places it has been nearly destroyed by the Fly. From our various correspondents we learn that the prospect is also quite unfavorable for an average crop of Rye and Corn. In some sections the grub worm has been very destructive.

Late advices from Liverpool state that the spring has so far been cold and backward, and that prices of grain are creeping up a little. There is also a decided diminution in the quantity of Wheat sown, Oats and Barley having paid the farmer much better during the last two years. English Wheat is quoted 7 to 8s.: Irish 6s. 1d.; American 7s. a 7s. 6d.; Dantzic 7s. 2d. a 7s. 9d. per 70lbs:

From Dauphin and Luzerne counties are the annexed accounts:

Dauphin County.—From all parts we learn that the wheat crop is going to be lighter than it has been in the remembrance of our oldest citizens. In many parts of this county our farmers will not reap as much as they sowed. This is also the case in the counties adjoining. The wheat crop is gone—nothing can save it, and those who are so fortunate as to have any to dispose of may expect a higher price for it than it has commanded for twenty years past, unless our wants are supplied from some distant source.—
Penn. Tel.

Luzerne County.—Kingston, June 8: We understand the Wheat crops in this section of country, generally, are not promising. The severity of the winter, it is said had an unfavourable effect upon wheat, and the insect is now at work in many fields.

A letter from Reading dated 7th June, says: "It has now rained with us 15 days, but as to its benefitting, the crops, particularly the wheat, it is all idle. I am now confident there will not be a quarter crop in Berks county."

A second letter says: "The wheat crop is daily becoming worse and worse, the ravages of the fly are very great."

A third letter of the third of June, written by a person a few miles out from Reading, in Berks county, states, that in that neighborhood some farmers are ploughing up their wheat fields—some pasturing them, others manuring them, and many purchasing wheat for seed for the ensuing crop.

From Bucks, Montgomery, Lehigh, Northampton, Lancaster, Lebanon, York, Cumberland, and other adjoining counties of Pennsylvania,—throughout Maryland, not only in the fertile western counties, but all lower Maryland, both shores of the bay—throughout the rich wheat raising districts of western Virginia, and in lower Virginia south of the James river, the same calamity is to be deplored. What the prospect is in lower Virginia, between the James river and Potomac, we are uninformed.

Those acquainted with the history of the Hessian Fly need not be informed, that the destruction caused by that insect, which is ascertained to be general, even in those fields which to-day promise some yield, has not yet fully developed itself. Time has not permitted its operations to their extent.

Why should this dispensation be concealed or glossed over? Why should expectations of better results to the harvests be made than the existing reality and the known operations of the Hessian Fly permit? We fear that the language of the Dauphin county Pennsylvania Telegraph is too true: "The wheat crop is gone, nothing can save it." The injuries it has already sustained would seem to be irretrievable.

The last crop of Indian corn did not, in great part, attain to sufficient maturity to keep—it is daily perishing. The recently planted (and now planting, upon the ploughed up wheat fields,) crop of Indian Corn exhibit, from all accounts, a very unpromising aspect; and there will in all probability, be a failure of it, unless the future weather of summer be propitious and protracted

—propitious beyond all experience of our seasons.

That immediate importations of Grain to any extent from Europe are not to be expected, is obvious. Prices in this country were declining in April and May. No apprehensions were, until towards the close of May, entertained for the growing harvests. Would any merchant in the United States or in Europe undertake shipments of grain to the United States in the face of declining prices, and of a growing crop coming to maturity in July—respecting which no apprehensions were expressed, none made public?

Should the alarm now commencing, excite shipments to arrive even late in the autumn, it will be well—it is the best that can be anticipated,—for the latest accounts from England forbid the anticipation of any foreign grain being likely to come to this country, until prices here may have approximation to *famine prices*.

The introduction to the paragraph in this paper of yesterday, purporting to be taken from the Pittsburg Advocate would have been more correct, had it read that in the entire northern, northwestern, and eastern section of the State of Pennsylvania, the injury sustained from the Hessian Fly, the extent of which is not yet fully developed, has been of the most calamitous character.

The first notice of the appearance of the Hessian Fly in the Valley of the Mississippi that has appeared, is that published also by us yesterday from Tennessee of the extensive destruction to the wheat crops of that State. It is to be borne in mind that the destruction caused by this insect first is manifested to the South, where the crops mature earliest, and progress northwardly as the maturing of the crops usually progress. The insect may not exist where it is not already known to be, but it is probable that it does exist where as yet it is not acknowledged. So wide spread a dispensation of this nature, as the present is ascertained to be, is not within the memory of man. The Pittsburg Advocate may have occasion to alter its representation. From Muncey, Lycoming county, the following appears in the Commercial Herald of this morning. Muncey is among the most fertile parts of the country.

The fly has destroyed the wheat crop in this section of the country. Fields which looked very well a few weeks ago, will not be worth the cutting. The rye fields bid fair for an average crop. The corn looks very bad. Owing to the drought about the time of planting, it did not come up, and the continued rain for 18 days which succeeded, caused the re-planting, in many instances to rot in the ground.—*Muncey Tel., June 11.*

The Richmond Enquirer of the 10th inst. as quoted in the New York Journal of Commerce of Monday, together with several notices of the Virginia and Maryland wheat crops more or less favorable as to their production, remarks, "in several parts of Pennsylvania and Delaware the crop is unpromising."

This same general observation amounts to absolute misrepresentation, by the idea it conveys to every reader's mind—to convey the truth the observation ought to be, that throughout the great-

er part of Pennsylvania, every part yet accurately heard from, and throughout the State of Delaware, including the best cultivated and most productive wheat raising districts in both states, the prospects of the growing crop is of a deficiency thereof of an alarming character.

If our readers will refer to their maps they will better realize the extent of the reality, than can otherwise be brought to their minds. Pennsylvania, Delaware, Maryland, and Virginia, all deficient to an alarming extent.

HIGH WATER AND DESTRUCTION OF CROPS.

On Sunday night last, previous rains having completely saturated the earth with water, a violent storm of thunder and rain come on which lasted for several hours. Next morning, the river commenced, and continued to rise until sundown, when it had attained a very unusual height—wanting only a few inches to make it as high as it was during the great flood of 1834, when it was as high as ever known.

The crop of wheat on the low grounds is almost totally destroyed. The crops of corn, oats and tobacco, are very much injured. But the season is not so far advanced as to prevent the re-planting of tobacco.

The smaller streams in the neighborhood were also much swollen, having swept off numerous mill-dams and bridges, and done much damage to crops in the low grounds.

Danville, (Va.) Rep.

THE LATE RAINS.

We have been informed that the different streams, in our vicinity, have not been so high, for the last thirty years, as they have been within the last four or five days. We had occasional rains for eight or ten days previous to last Sunday, which had so saturated the earth, that the immense torrents of rain that fell on that night and Monday morning, ran off immediately and swelled the Creeks to such an extent, that the water soon overflowed their banks, covered the low grounds in their vicinity, and swept almost every thing before it, fences, mill-dams, mills, &c.—and although no bridges that we can hear of, have been carried off, yet we understand that some have been seriously injured. We are informed that it will cost at least \$30,000 to repair the damages that have been sustained on the Catawba alone. It is said that it will take \$3000 to repair the fences, &c. on the estate of the late Gen. Breckenridge, and the Catawba Iron Works Co. have been heavy sufferers, having had a mill, mill-dam, furnace dam, &c. swept away and the stack of their furnace so seriously injured that the furnace "blew out," and what is still more lamentable, a hired negro man lost his life in attempting to save some property deposited in the mill; he was struck by some of the timbers and sunk to rise alive no more. We have no correct information of the amount of damage sustained on Craig's creek, but presume it must be heavy, as it raised sixteen feet above low water mark.

Fincastle (Va.) Democrat.

VIRGINIA SILK COMPANY:

We have received a copy of an act of the General Assembly of Virginia, passed the 21st of March, 1836, incorporating William Brown, Tho-

mas B. Barton and Conrad H. Hunt, and their associates, under the name of the "Virginia Silk Company," with a capital of \$10,000 "for the purpose of rearing, reeling and manufacturing silk." We think the charter a very liberal one and creditable to the intelligence of the Old Dominion. The company are authorised to hold 2000 acres of land in each of the counties in the state, and the charter is to be in force thirty years from its passage. Our correspondent remarks: "A great deal of preparation is making in this section [Fredericksburg] of Virginia for the silk culture. I have no doubt in a few years we will in fact be a silk growing people. Lands are here low in price, and soil and climate admirably adapted to the culture of the tree and the rearing of the worm."—*Silk Culturist*.

GREAT CORN CROP.

We published in No. 43 of volume 2, a very brief account of the yield of three fields of corn raised last year in the state of Delaware by Major Philip Reybold; but as the following communication gives a highly interesting detail of the plan pursued by him, as well as the result of three separate experiments, we know we shall consult the taste of our readers by transferring it to our columns:

[From the Cultivator.]

REMARKABLE LARGE CORN CROP.

Mr. JESSE BURL—It affords me pleasure to be enabled to resort to your very useful agricultural as a medium through which I can bear testimony to the value and importance of the soil of our little State of Delaware.

Little has been heretofore known, beyond its own limits, of the superior quality of the soil of the peninsula of Delaware and Maryland, and of its advantageous location; but the present age of improvement has, fortunately, brought within a part of our territory the public improvements of a canal, and two rail roads, which have developed to the world the importance of our location, the beauty of our country, and the susceptibility of our soil, to the greatest extent of production and improvement. These improvements appear also to have infused new life into our citizens, and caused a spirit of enterprise and industry which has been most beneficial to the agricultural interests of our country.

As a specimen of the capability of the soil, and the ability of the farmers in the neighborhood of St. George's, New Castle county, Delaware, permit me to present you with the following statement of a crop of corn, raised last year, by Maj. Philip Reybold, one of our most enterprising farmers—one to whom our community are largely indebted for the impetus given to our agricultural improvements—viz:

On one field of 22 acres, he raised 2,216 bushels, about 100½ bushels per acre.

On another field, 30 acres, he raised 2,240½ bushels, about 75 bushels per acre.

On do. 27 acres he raised 1,819 bushels, about 67 bushels per acre.

79 acres—total crop 6,284½ bushels—averaging for the whole crop of 86 acres, near 80 bushels to the acre—and all this upon a soil that was

not naturally as good as a greater part of the soil of this country; and brought up within the last ten years, from an extreme state of poverty.

I have obtained from Maj. Reybold, a statement of the mode adopted by him for the improvement of his land, as well as the cultivation of the crop of corn here referred to, which is as follows: On the field of 22 acres, about 7 years ago, he put 60 bushels of stone lime to the acre and planted it in corn, in the following spring he put it in oats, and in the fall put on about 40 loads of barn yard manure to the acre, and sowed it in wheat and timothy seed, and in the ensuing spring with clover. It remained in grass until last spring, receiving an intermediate top dressing in 1833, of 40 loads of barn yard manure per acre. He mowed it for 3 or 4 successive years, and each year obtained from 2½ to 3 tons of hay per acre. Last spring he gave it another top dressing of 40 loads per acre of long manure, which was permitted to remain as long as possible in order to give the grass a chance of starting through it. He then ploughed it up about ten inches deep, with a No. 5 concave plough, which completely covered the manure; he then gave it a stroke with the harrow along the course of the plough furrows, and then crossways, and struck it out very shoal, 3½ feet from the centre to centre each way. After the corn came up, he harrowed it both ways with the fallow harrow, and from that, until the first of July, he gave it three dressings with the cultivator (fluke harrow) first crossing the plough tracks; in ten or twelve days the other way, being very careful not to disturb the manure by going too deep with the cultivator. The plough was never used in the field after planting, and the corn thinned so as to leave 3 good stocks in the hill. When the corn became fit to top and blade he cut it off by the ground and put it up in shocks.

The field of 30 acres—one half he covered with oyster shell lime, 100 bushels to the acre, and 5 acres with marl, 12 loads to the acre; and previous to planting in corn, the whole field was covered with 40 loads of long manure per acre. The produce of the ground on which the lime and marl were put, was about equal, and exceeded that of the ground which had not the benefit of the lime and marl, about 12 to 15 bushels per acre as near as he could judge. The field was planted and tilled in the same way as the one described. In order to test the advantage of the cultivator over the plough, for tilling corn, he had 5 furrows in this field that he lapped the furrow to, with a plough, previous to going over it the last time with the cultivator. He soon discovered that the growth of those five rows fell short, in height, of those adjacent, and yielded one-fifth less corn.

There is no doubt but this mode of tilling corn, especially where the sod ground is used, is, to plough deep, and to use nothing but the fallow and fluke harrow for its cultivation. By not disturbing the sod ploughed down, it remains there as a reservoir of moisture, and an exhilarating principle throughout the season, to the growth of the corn.

The third field of 27 acres was covered with about 30 loads of manure to the acre, in the spring of 1834, and 6 or 7 years ago, 60 bushels of stone

lime, per acre, was put upon it. The planting and mode of cultivation was the same. I might here remark, that all the second, and a part of the third field, were in corn, the year before last.

JAMES N. SUTTON.

St. Georges, Delaware, March 5, 1836.

NOTE.—The management which led to the extraordinary product of corn, should be deeply impressed upon the mind of every corn grower. 1, The ground was well dunged with long manure; 2, it was planted on a grass ley, with one deep ploughing; 3, it was pulverized with the harrow; 4, the plough was not used in the after culture, nor the corn hilled, but the cultivator only used; 5, the sod was not disturbed, nor the manure turned to the surface; and 6, the corn was cut at the ground, when it was fit to top. These are the points which we have repeatedly urged in treating of the culture of this crop; and their correctness is put beyond question by this notable result. The value of lime and marl are well illustrated in the second experiment.—CONDUCTOR OF THE CULTIVATOR.]

THE SILESIAN, OR SUGAR BEET.

We published a few weeks since a correspondence upon this subject, and take great pleasure in giving place to the present one. The culture of the *Silesian or Sugar Beet* is awakening great interest in many parts of our country, and, therefore every thing relating to it cannot fail to be well received. The enhanced value which the introduction of its culture has given to landed property in France, will not a little commend it to the attention of our sagacious and calculating countrymen.

THE SILESIAN OR SUGAR BEET.

We lay before our readers this morning some interesting information in relation to the cultivation of the sugar beet in France. The sugar in the possession of Mr. Sutherland, is of a very superior quality. He has already distributed some of the seed among the members of Congress from the respective states. In a few days a larger quantity will be forwarded to this place for distribution.—*Globe*.

Philadelphia, June 2, 1836.

Dear sir: I have the pleasure to send you a small quantity of refined sugar, received from France by our respected fellow-citizen, Mr. Vaughan, prepared from the beet, and sold at 9 cents per pound. The same quality sugar is now selling here from 18 to 20 cents. I also send you a package of the seed, being of the parcel sent out by the agent sent to Europe; and enclosed you will find directions as to the culture.

I am, very respectfully, &c.

FREDERICK BROWN.

Hon. J. B. Sutherland, M. H. R.

BEET SUGAR.

The following is an extract from a letter from a gentleman now residing in Paris, and who resided many years in Philadelphia, to Jas. Ronaldson, esq. who takes great interest in introducing this branch of husbandry and manufacture into the United States:

PARIS, April 7, 1836.

Since my last, accompanying your beet seed, (which I hope you have received in good order,) Mr. Pedder has done much towards accomplishing the object of his mission. First, he shipped near 600 pounds of beet seed, with which there might be sown many acres of Jersey and other lands. Then we sought men and books for information, and could find only high talk and declamation. Next, I mustered all the recommendations I could collect, and agreeably to Mr. Pedder's own plan, he was despatched to Arras, whence he strolled to Douay and Valenciennes, and returned to Arras, where, from the information I received from the gentleman I recommended him to, and from himself, I find he is hard at work, and means to continue this month, and then return to the United States, fully, I am confident, adequately qualified to perform all the operations of beet sugar making, from the crushing of the roots, nay, the growing of it from the seed, to the crystalization of the matter.

My friend, this may not be the last service you and your associates will do to society. I hope it is not, and that you have many more in reserve. But when I consider its importance, the influence it must have in American society, for mind ye, in America, sugar is like salt, no one can do without it; I think it is the most important service you could render society at the present time.

I think you have made an excellent choice in the man you sent. His intelligence, activity, and assiduity are admirable; you have good reason to expect success. Mr. Pedder writes to me on the 1st from Arras:

"And in the first place to thank you for your kind letters to your friends which have introduced me to all that is necessary in this interesting country, a land flowing with milk and honey in the shape of Beet Sugar. I believe that two persons cannot meet without the first topic being *Betterave* (beet root.) Indeed I am not sure that the parson did not preach about it last Sunday; nothing else is thought or spoken of, and no wonder, for from 100 pounds of beet root they make 6 pounds of sugar, besides 8 pounds of molasses, with which to make sugar of the second quality, and 15 pounds of cake, sufficient to keep three sheep a day.

"Three years ago there were 13 manufactories at Valenciennes; there are now 64. Land which was then 500 francs an arpent now brings 1200; the price of labor is much risen, and the people are getting fat on the mutton and beef, made upon the cake or *caput mortuum* of the root: what will this not do for America?"

Thus much, my friend, for the Beet Sugar, the introduction of which cannot fail to produce a mighty ameliorating revolution in the United States. Give information to Mr. Vaughan, to whom please to remember me kindly. Mr. Vaughan must be a young gentleman of my age. I recollect dining with him in December, 1785, at Dr. Franklin's. I am anxious to know whether you have received your invoice of beet seed, and whether Mr. H. has his.

Extract of a letter from a gentleman in Paris.
CULTIVATION OF THE SUGAR BEET.
(SILESIA BEET.)

This plant requires light ground, that has some depth. Those who cultivate it regularly, give it one ploughing before winter, and another in February or in the course of March: it is then harrowed in order to make it smooth as possible. It should not be sown till the frost is no longer to be feared—it may be sown, according to circumstances, from the end of March to the end of May. It is sown either by scattering like wheat, or in furrows, regularly distanced, say nine inches apart. The first mode (like wheat) is much quicker—the second more profitable, it saves one good half of the seed which is used for the first mode. The seed thus sowed, and covered by something like an inch of ground, soon makes its appearance. When the young sprouts are four or five inches from the ground, it is proper to *thin* them, that is to say, to pick out the excess of the plant which may injure the growth of those which you wish to remain, and care must be had to suppress such plants as are less healthy and vigorous, and preserve those that are more so.

When the plant has been thus *thinned*, or while you are thinning it, it should be weeded with a weeding hook or a hoe; this is done here to advantage, by a *weeder* drawn by a horse. This weeding operation must be repeated two or three times while the plant remains in the ground to prevent wild plants from injuring the growth of the beet and choking it.

When the seeds have been thrown on the ground in the common way, like wheat, it often happens that several parts have received no seed; in this case, the best of the plants that have been taken from those places which had too many, are to be picked and placed in the places where they are wanted; but to have them succeed care should be taken that the root should stand upright in the hole made to receive it. If the weather continue long dry, it would be well to water it. During the vegetation of the beets, care should be taken to prevent the leaves being taken off; the growth of the root would be greater than the profit that would accrue from the leaves being taken to feed the cattle, of which cows and other animals are quite greedy.

The beets ought always to be reaped before the frost or frost-time has come, to avoid the danger of losing the crop. In every part of France that operation takes place in October.

If it were a possible thing to extract the juice of a crop of beets as soon as they are out of the ground, the produce would be much greater than when they or a great part of them are kept for several months unworked. But the sugar manufacturer is always forced to keep for several months, a great part which has not been submitted to the operation. It is necessary, therefore, to place them in some safe place, where they may be found when wanted, free from rot and fermentation, that is to say, before the plant has suffered either vegetation or any internal movement.

Two conditions are indispensable for the preservation of beets: first, that they may be kept in a place sufficiently dry to prevent rotting without being hot enough to promote vegetation or fer-

mentation—second, that they be completely sheltered from frost. Whatever part is touched by it, is lost for the fabrication of sugar.

An arpent of land, that is to say 1844 square fathoms of six feet (French) square, produces 20,000 pounds weight of the root.

The gentlemen interested in introducing into the United States the culture of the *Sugar Beet Root*, and the manufacture of Sugar therefrom, are very desirous of having transmitted to the Governor of each State and Territory, a quantity of the seed of the true sugar kind which they have received from their agent, who is at present in France. Any individuals acquainted with a direct and speedy mode of transmitting the same, will confer a favor by communicating with Mr. Jacob Snider, Jr. 32 Walnut street, President and Secretary of the Society for promoting its introduction here. We trust that editors will give the above circulation.

SPAYING MILCH COWS.

We copied some months since from the *Veterinarian* some facts illustrative of the advantages of spaying milch cows, and we insert in the present number the result of five other cases, which will be found interesting.

[From the *Veterinarian*.]

NEW FACTS IN PROOF OF THE ADVANTAGE OF SPAYING MILCH COWS.

By M. Regere, M. V., Bordeaux.

Several instances have been related in your journal of the good effect of spaying milch cows. I would beg leave to add some cases which have come under my own observation. The cows were taken from the best dairies, but for obvious reasons, I selected those that had met with some accident at the time of calving.

Case I.

A large cow, fifteen years old, had calved on the 24th of January, 1834, and had, a few days after parturition, given from three to four gallons of milk per day. On the 22d of April following, she yielded only two or two and a half gallons. I then operated upon her. The pain of the operation, and the restricted diet to which she was afterwards subjected, greatly diminished the produce to half that quantity.

As soon as the consequent inflammation had disappeared, and the cow returned to her usual food, the flow of milk rapidly increased, and in fifteen days after the operation, the wound having healed, she yielded daily from two to two and a half gallons, and that quantity has not since diminished. She has also taken on a disposition to fatten, and is in better condition than she was before. She has once since shown a desire for the bull, but was not sent to him.

Case II.

A small cow, six years old, calved on the 26th of March, 1834, and at that time yielded two gallons and a half of milk per day. On 30th April she gave two gallons, and she was then spayed. She suffered little from the operation; her milk did not diminish, and she yields the same quantity at the present day. She has not shown any longing for the bull.

Case III.

A little cow calved on the 12th of April 1834. Some days afterwards she yielded 2 gallons of milk per day, and she was operated upon on the 13th of May. She seemed, for a considerable time afterwards, to be in a poor state of health; her skin became yellow; the hair fell off in patches, and particularly about her fore quarters. She moaned sadly from time to time, and her appetite considerably diminished. The quantity of milk remained the same.

On June 20th she seemed to be really ill, and yielded, during 7 days, little more than a gallon of milk per day. The quantity gradually lessened after that period, and continued to decrease until the end of July, when she was evidently dropsical. She was sometimes better and sometimes worse, until the 4th of September, when she died.

2 lbs. of bloody serosity were found in the thorax. The lungs contained numerous tubercles, some hard, and some even stony, and some soft, and others filled with purulent matter.

On opening the belly it contained at least 7 gallons of a similar fluid. The fourth stomach and some of the intestines were found softened and black, and the food contained in the stomach was fetid. The liver, enlarged and yellow, was softened, and it also contained many tubercles, hard or soft.

The womb was unaffected, except the extremities of the two cornua, which were of a yellow color, and hard. Few traces of the operation of spaying remained, unless in the sublumbar region, in which a spot of blackish color was seen where each ovary had existed. A white tenacious tissue had united the incision made thro' the abdominal muscles, and caused the parieties of the abdomen to adhere strongly to the skin.

This examination after death, proved that the cow was not lost from any morbid consequence of spaying, but from ascites, produced by the lesions stated, and which had existed before the operation.

Cases IV. and V.

Two cows were operated upon in the month of May. One, 8 years old and giving two gallons of milk per day, and that had calved on the 10th of April, was spayed on the 8th of May. She suffered from the operation, and did not give more than two or three quarts per day; but she soon recovered, and when the wound was healed, yielded her usual quantity, and which she continues to do unto the present period.

The other, aged ten years, and that had calved on the 15th April, and gave, a month afterwards, nine quarts of milk per day, was spayed on the 15th of May. In four days after the operation she gave again her usual quantity of milk; this increased to 10 quarts, and she yields that unto the present day.

These cows showed a disposition for, and went to the bull several times after the operation; and, being incapable of conceiving, the œstrum (or heat) returns on them periodically. The first has been with the bull four times, and the other twice.

These five cows have continued to yield the same quantity of milk which they gave at the time at which they were spayed; and this, on a

fair calculation of the usual gradual diminution of the secretion, is double the amount that would otherwise have been obtained in the whole period. We must not yet go farther than this, but if cows that have been spayed should continue to yield such an extra quantity of milk as long as they live, the operation will be valuable indeed.

[From the New Castle Gazette.]

GOOD CATTLE

Should not be cheap, nor cheap cattle should not be good.

Every farmer will acknowledge the truth of the first part of the above proposition, but alas for Delaware! all of her farmers do not practice upon the precept. They seem rather to act in accordance with the last part, and prosper accordingly; it has been a mistaken notion with many, who could do better than they do, that it is better to raise up a large number of poor kind of cattle for the market, and sell them at a small price, than it would be to put what these same 'lean kind' cost, both in care and food, into a few first rate cattle, and sell them for a sum double in amount, to what they have received for the haggard regiment of hoof and horns, which some turn off yearly. These individuals are often great stock raisers and dealers, and at the same time show them, or tell them of a Bull worth two or three hundred dollars, and they will lift up their hands in horror at the extravagance, and call it all folly and nonsense, &c.—This kind of feeling not only injures those who possess it, but is also a real injury to the community, because it is a barrier to the march of improvement. We will suppose that a spirited individual, who may perhaps be not very well able to incur the expense, purchased one of the improved breed of cattle to raise the character of his own breed, and also that of his neighbors, relying on their support for indemnifying him in the enterprise. What is the result? If his neighbors are of the class which we have just described, and we will leave it to you, loving reader, if you have not some of this description, instead of giving him aid as they very easily could, ten chances to one they will ridicule the animal, and the enterprise, and throw obstacles in the way, and blame the individual for trying 'to do something great.' This kind of management has been practised in more than one neighborhood, to our certain knowledge; and if the person has not been spirited enough to break through the trammels of prejudice, and carry out his project by his own unaided energy, he must inevitably fail of success, and suffer a loss. Now if these same people would stop and consider for a moment, or just calculate the expense of raising, we will say an ordinary pair of steers, and of raising an extra pair—note down the difference—then put them both into market, and note down the difference in price, they would soon see on which side the advantage was.

It costs no more care—no more labor—no more steps to raise the good pair. If they eat more, they will do more labor by way of offset, and they are always saleable, while the ordinary ones are oftentimes a drug. Many, who like to see and have good cattle, nevertheless are unwilling that the improved breed should be held

so high in value, and would fain bring them down to a level in price to the common and unimproved kinds of breeds. Now it is not right that they should be put on an equality; for various reasons. In the first place, they should command a higher price, because they are actually, in every respect, worth more, and secondly, every one will, as a matter of course, pay more attention, and consequently keep up the improvement longer on any thing which has cost much, than he would upon a thing that is thought to be of not much value. There will be also more exertion to keep the actual value up, and at last the spread of improvement will be effected. Had not Livingston sold his Merino Bucks at \$3000 a piece, think you the attention of people would have been turned to them? If he had given them away, it is probable that we should soon have heard no more of the breed, for it is a fault of nature, that we despise what we can get the easiest. So it would be with the improved breeds of cattle, if they could be afforded, or were sold at the low prices at which ordinary cattle are—the interest, the pains, and the care which is now felt and taken in them would cease, and they would degenerate because of the neglect, and finally become extinct. For these reasons, we would repeat the assertion, that good cattle should never be cheap, and cheap cattle should never be good.

THE HOUSE WIFE PRESERVING BUTTER.

Believing that butter may be kept sweet and good, in our climate, almost any length of time, if properly manufactured, and well taken care of, in order to test the validity of this opinion, we had two pots put down, one in June, and the other in August, 1834, more than twenty months ago; and on probing them with a tryer, while penning this article the butter is found perfectly sweet, and seems to retain most of the original flavor and freshness. We design to send both pots to Boston next fall, with a view of having its mode of manufacturing, and method of preservation, judged by the butter tasters of that notable city.

In the manufacturing process, no water is permitted to come in contact with the cream or butter—because it is believed that water, and particularly soft water, dissipates much of the finer flavor that gives to butter its high value. The Orange County dairy women say, "give us good hard water and we will make good butter," for the reason probably, that it abstracts less of the aroma from the butter than soft water. The temperature of the cream may be regulated by cold or hot water put into a tub, in which the churn may be plunged. If the cream is clean it needs no washing; and if the butter is dirty, water will never clean it.

Nothing but good well pulverised salt is used in preserving the butter; this is all mixed, and all dissolved, in the mass, before the butter has its second, thorough and final working with the butter ladle, and which is not finished till all the buttermilk is expelled.

To avoid all taint from the butter vessels, and the better to exclude it from the air, which soon injures it, the butter is packed close in clean stone jars, and when nearly filled, is covered with

a strong brine, rendered pure by previous boiling, skimming and settling. In twenty months this brine has been twice renewed, on the appearance of a film upon the surface of the old pickle. To preserve butter, air and water, and heat above 65 or 70 degrees are to be guarded against as much as possible. The brine upon the surface does not penetrate the mass, nor while sweet, taint it; but it thoroughly excludes the air.—*Cultivator.*

[From the New England Farmer.]

BRITISH AGRICULTURE, &c.

An article has appeared in the *Edinburgh Review* for October and January, 1835-6, which contains many important details, relative to the progress of improvement in agriculture, together with information relative to the increase of manufactures, commerce, population, &c. &c., in Great Britain, since 1760. This is interesting and contains a mass of information, which must make it very valuable to our trans-Atlantic brethren; and we would with pleasure publish it entire, were we not precluded by its great length, and the want of applicability of a large part of it to the circumstances of this country. We will however give abridged statements of some of the most important facts, and copy some of its notices of agricultural improvements, which we think may be useful to American agriculturists.

Increase of Population in Great Britain.

Taking the population of England and Wales in 1755 at 6,259,707 (the mean between that of 1750 and 1760,) and adding to it the then population of Scotland, we get 7,525,180 for the population of Great Britain in 1765. But the population in 1831 was 16,539,318, showing that in the interval there had been added to it the prodigious number of 9,014,139 individuals, or that it had increased in the ratio of nearly 220 per cent! An increase of this sort is unparalleled in any other European country, and is to be matched only by the increase that has taken place in the United States.

Now, if we affirm that the improvements that have been made in the agriculture of Great Britain since 1755 have sufficed to provide an ample supply of food for this additional nine millions of inhabitants; and if we suppose, which is certainly a moderate estimate, that they consume one with another, to the value of £3 a year of raw produce, it will follow that the progress made in agriculture, since the middle of last century has added the enormous sum of £72,000,000 a year, or more than twice the total value of the cotton manufacture, and nearly three times the interest of the national debt, to the free disposable income of the country. It will not be difficult to show that such is undoubtedly the fact.

Improved quality of Food.

Great as has been the change in the quality of food made use of in England during the last thirty or forty years, it is inconsiderable compared with the change that has taken place, during the same period in Scotland. At the end of the American war, no wheat bread was to be seen in farm-houses, country villages, and minor towns of Scotland, and but little even in the largest towns. Oat cakes and barley bannocks were then universally made use of, but at present, the

case is widely different. The upper, and also the middle and lower classes in towns and villages, use only wheat bread; and even in farm-houses, it is very extensively consumed. It is stated in the first of the work mentioned at the head of this article, that a field of eight acres sown with wheat, in the vicinity of Edinburgh, in 1727, was reckoned so great a curiosity, that it excited the attention of the whole neighborhood, and that numbers of persons came from a great distance to see it! Even so late as the American War, the wheat raised in the Lothians and Berwickshire did not amount to a third part of what is now grown in them; and we shall certainly be within the mark, if we affirm that the wheat culture has increased in Scotland, generally, in a *tenfold* proportion since 1780.

But the change that has taken place during the last half century, in the consumption of butchers' meat, is still more extraordinary than that which has taken place in the consumption of corn. The quantity made use of has been wonderfully increased, and its quality signally improved. From 1740 to about 1750, the population of the metropolis fluctuated very little; amounting, during the whole of that period, to about 670,000 or 675,000. Now, during the ten years ending 1750, there were an average about 74,000 head of cattle, and 570,000 head of sheep sold annually in Smithfield market. In 1836, the population had increased to 1,472,000, or in the ratio of about 218 per cent; and at an average of the three years ending with 1831, 156,000 head of cattle, and 1,238,000 head of sheep, were annually sold in Smithfield; being an increase of 212 per cent on the cattle, and of 217 per cent on the sheep, as compared with the numbers sold in 1740-50. It consequently appears that the number of cattle and sheep consumed in London, has increased, since 1740, about in the same proportion as the population. The weight of the animals has, however, a good deal more than doubled in the interval. In the earlier part of last century, the gross weight of the cattle sold at Smithfield did not, at an average, exceed 570 lbs., and that of the sheep did not exceed 28 lbs; whereas, at present, the average weight of the cattle is estimated at about 800 lbs., and that of the sheep at 80 lbs. Hence, on the moderate computation, it may be affirmed that the consumption of butchers' meat in the metropolis, as compared with the population, is twice as great at this moment as in 1740 or 1750.

In most other parts of the country, the increase in the consumption of butchers' meat has been even greater. In thinly peopled agricultural districts very little is consumed, but in manufacturing and commercial towns it is quite the reverse; and their vast increase during the last half century more than justifies the inference, that there has been, at least, a corresponding increase in the consumption of butchers' meat.

In this respect too the change in Scotland has been quite as great as that with respect to bread. So late as 1763, the slaughter of bullocks for the supply of public markets was a thing wholly unknown even in Glasgow, though the city had then a population of nearly 30,000!*

* Cleland's Statistical Account of Glasgow. 2d edit. p 192.

1775, or perhaps later, it was customary in Edinburgh, Glasgow, and the principal Scotch towns, for families to purchase in November, what would now be reckoned a small, miserable, half-fed cow or ox, the salted carcass of which was the only butchers' meat they tasted through the year. In the smaller towns and country districts, this practice prevailed till the present century, but it is now almost every where abandoned. The consumption of butchers' meat in Glasgow, as compared with the population, does not at present differ materially from that of the metropolis. We do not, indeed, believe that the command of the people of any country over food and all sorts of conveniences, ever increased, in any equal period, half so rapidly, as that of the people of Scotland has done since 1770.

A portion of the increased supply of butchers' meat has been derived from Ireland, but being mostly thrown on a single market, that of Liverpool, this portion appears much larger than it really is. If we estimate the imports of butchers' meat into great Britain from Ireland, at a tenth part of the increased quantity produced in this country since 1770, we shall not be within but decidedly beyond the mark.

It results from the previous statements,—1st, That the population of Great Britain has been considerably more than doubled—that the prodigious number of nine millions of individuals have been added to it in the interval between 1755, or 1760 and 1831. 2d, That the supplies of corn, and other raw produce obtained from Ireland, are quite insufficient to provide for the increased number of horses kept in the country at present, over and above those that were kept in 1760. 3d, That the population is now and has been for some years past, incomparably better fed, consuming a much greater quantity of wheaten bread and butchers' meat, in proportion to its amount, than in 1760, or at any other period of our history. And 4th, That the ports have been shut during the last four years: and that, consequently, the vast additions made to the population, and the signally improved mode of living, have both been provided for by the extension and improvement of British agriculture. There is not one of these propositions liable to either cavil or dispute—they are all bottomed upon unquestionable evidence. And having established them we shall now briefly inquire into the nature and influence of the more prominent of those agricultural improvements, the result of which is, in the aggregate, so astonishingly great.

[To be continued.]

SUCCESSION OF CROPS.

But however well adapted the soil and climate may be to the cultivation of any particular kind of vegetable, the former soon ceases to be productive if constantly appropriated to the culture of plants of the same or analogous species. In order that land may be cultivated successfully, various kinds of vegetables must be raised upon it in succession, and the rotation must be conducted with intelligence, that none unsuited either to the soil or climate may be introduced. It is the art of varying the crops upon the same soil, of causing different vegetables to succeed one another, and of understanding the effect of such upon the

soil, that can alone establish that good order of succession which constitute cropping.

A good system of cropping is in my opinion, the best guarantee of success that the farmer can have; without this, all is vague, uncertain and hazardous. In order to establish this good system of cropping, a degree of knowledge is necessary, which unhappily is wanting to the greater part of our practical farmers. I shall here state certain facts and principles which may serve as guides in this important branch of agriculture.

Principle 1. All plants exhaust the soil.

Principle 2. All plants do not exhaust the soil equally.

Principle 3. Plants of different kinds do not exhaust the soil in the same manner.

Principle 4. All plants do not restore to the soil either the same quantity or the same quality of manure.

Principle 5. All plants do not foul the soil equally.

From the principles which I have just established, we may draw the following conclusions:

1st. That however well prepared a soil may be, it cannot nourish a long succession of crops without becoming exhausted.

2d. Each harvest impoverishes the soil to a certain extent, depending upon the degree of nourishment which it restores to the earth.

3d. The cultivation of spindle roots ought to succeed that of running and superficial roots.

4th. It is necessary to avoid returning too soon to the cultivation of the same or of analogous kinds of vegetables, in the same soil.

5th. It is very unwise to allow two kinds of plants, which admit of the ready growth of weeds among them to be raised in succession.

6th. Those plants that derive their principal support from the soil, should not be sown excepting when the soil is sufficiently provided with manure.

7th. When the soil exhibits symptoms of exhaustion from successive harvests, the cultivation of those plants that restore most to the soil, must be resorted to.

These principles are confirmed by experience; they form the basis of a system of agriculture rich in its products, but more rich in its economy by the diminution of the usual quantity of labor and manure. All cultivators ought to be governed by them, but their application must be modified by the nature of soils, and climates, and the particular wants of each locality.—*Chaptal's Chemistry.*

WEIGHT OF GRAIN.

It may be interesting, and possibly of real utility to young farmers, to give the average weight of some of the most common kinds of grain and grass seed.

Wheat, mean weight,	60 lbs:
Rye, do.	56
Barley, do.	48
Oats, do.	35
Indian Corn, do.	58
Peas, do.	63
Beans, do.	62
Red Clover do.	64

The weight often varies a few pounds to the

bushel, according to the season and climate, soil and culture, and variety of seed. Wheat has weighed as high as 67½ pounds, and Indian Corn 64 pounds per bushel. Some barley has weighed as high as 54 pounds. On the other hand grain has often weighed less than the number of pounds above given, as unfavorable circumstances have operated. Wheat has fallen as low as forty-five.

TEA PLANT.—Mr. John Platt of Marietta Ohio, advertises in the *Marietta Gazette*, that he has succeeded in cultivating the genuine *Tea plant of China*. From the latter part of his advertisement it appears that he has not been influenced in his experiments by any selfish consideration but by a desire that the cultivation may prove beneficial to the country. The following are Mr. Platt's own remarks.—*Zanesville Gazette.*

TEA PLANT.

The subscriber has for ten years past cultivated, successfully, the genuine *tea plant of China*, and believes confidently that, after making various experiments involving considerable expense, he has at length discovered the art of drying and manufacturing the leaves, so as to produce the article of tea, in quality equal to the young hyson imported.

He has in his possession, samples which he will exhibit to any one desirous or curious to ascertain the fact. He will also give, gratis, to any gentleman desirous of cultivating it, or willing to make the experiment, fresh seed, of last year's crop, and will, moreover, give instruction for planting and rearing it. He is certain it may be raised and cured in this country, with good profit.

JOHN PLATT.

Marietta, Ohio, April 19, 1836.

N. B. It is not any selfish motive that has induced him to give this notice, but a sincere desire that it may prove a benefit to this country in which he has passed the *better part of eighty years* of his life. Inquire for me at *Mr. Christopher Carpenter's*, Green street.

President Dwight mentions that when he lived on Greenfield Hill, he often noticed that delicate plants which were protected by a fence from the north wind, were cut off by spring frosts, while those which were more exposed were uninjured. It was observed after the frost last week that some plants which were open to the north were saved, though the mercury was at 26 above zero.

His explanation was that the north wind drives the moisture from the plant and thus prevents it from being frozen upon it—so it would seem that in the case of what are called black as well as white frosts, it is not the juice of the plant which is frozen, but the external moisture.

Perhaps if observers compared notes on this subject something more might be known. It is desirable to get all information on a point so interesting to cultivators of gardens and orchards—for fruit is affected in a similar way.—*Springfield Rep.*

LUNAR INFLUENCE.—A writer in the *New York Farmer* has the following remarks on the

subject of the influence of the moon upon the weather:

"In the course of my observation, I could not but refer at times to the remarks of the Indians, the ancient inhabitants of the country of my youth, of which there were a number of them living, and that was, that after the changes of the moon, if the corners pointed up in the form of a dish, it would be dry weather that moon, but if one down and the other up, it would be rainy or wet. Although astronomical knowledge taught me this was without foundation, still from repeated remarks, I was finally compelled to admit that there was some truth in the observation; and in process of time was led to form the following conclusions; that is, when the moon changes in a high north latitude, it is generally cold and dry; but if in extreme south latitude, warm and wet, and apt to be stormy. It may be remarked, that when the moon changes in high north latitude, it makes the figure of the corners pointing up, and in the extreme south the other figure, which verifies the truth of the old Indian's remark. Hence although admitting that the sun and moon are the principal agents in governing the weather, there seems to be other causes which at times vary uncertainty; but I have very rarely known it fail that the moon in extreme south latitude, denotes warm and stormy weather, and in high north latitude, cold and dry; and they are apt to be of short duration. As my limits will not allow me to go farther into detail, it may suffice to remark, that if our almanack makers would give us the latitude of the moon at the full, change, and quarters, with the course she is going, whether north or south, we might foretell for ourselves, or they might give it by their own judgment from the moon's latitude in probability.

CONTENTS OF THIS NUMBER.

Notice of an article on British Agriculture—the Crops &c.—the late Rains and destruction of Crops, &c. in Virginia—Virginia Silk Company—great crop of Corn in Delaware—the Silesian or Sugar Beet—cultivation of do.—spraying Milch Cows—good Cattle—preserving Butter—British Agriculture, &c.—succession of Crops—weight of Grain—Tea Plant—effects of the north wind upon Plants—lunar influence—prices current—advertisements.

THE SILK MANUAL.

JUST published and for sale by *Sinclair & Moore and Robt. Sinclair, Jr.*, at the *Maryland Agricultural Repository*, Light near Pratt street, Baltimore, a complete *Manual of the Silk Culture*, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

Printed by *Sands & Neilson, N. E. corner of Charles and Market streets.*

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday.

	PER.	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	7 00	8 50
CORN, yellow,	bushel.	79	80
White,	"	77	78
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18½	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam	barrel.	8 00	8 50
Do. do. baker's,	"	7 50	8 00
Do. do. Superfine,	"	7 00	7 25
SuperHow. st. in good de'd	"	6 87	7 00
" wagon price,	"	6 75	6 87
City Mills, extra,	"	—	7 25
Do.	"	—	6 87
Susquehanna,	"	6 87	—
Rye,	"	4 75	4 87
Kiln-dried Meal, in hhds.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
GRASS SEEDS, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 50	3 00
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	—	8 00
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	40	45
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 00	4 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	78	80
Susquehanna,	"	—	85
TOBACCO, crop, common,	100 lbs.	4 75	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 25	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	1 60
Red,	"	1 50	1 55
WHISKEY, 1st pf. in bbls.	gallon.	34	35
" in hhds.	"	33	33½
" wagon price,	"	31	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs.	1 25	—
To Wheeling,	"	1 50	—
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	22 24

GAME CHICKENS.

FOR SALE, five dollars a pair, Game Fowls, warranted to be of genuine strain. Apply to the editor

POTATO OATS.

100 Bushels seed potato oats—a choice article—for sale by JAMES MOORE, Light, near Pratt st. Mh 22 at the Maryland Agricultural Repository March 8th.

BALTIMORE PROVISION MARKET.

	PER.	FROM	TO
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured, ..	pound.	15	17
Shoulders, .. do.	"	12	—
Middlings, .. do.	"	13	14
Assorted, country,	"	11	13½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,	"	20	20
CIDER,	barrel.	—	—
CALVES, three to six weeks old, ..	each.	4 50	6 00
COWS, new milch,	"	25 00	50 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 75	1 81
CHOP RYE,	"	1 75	1 81
EGGS,	dozen.	—	12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 37	—
Mackerel, No. 2,	"	—	—
No. 3,	"	—	—
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virginia,
Branch at Baltimore,	do	Bank of Virginia,
Other Branches,	do	Branch at Fredericksburg do
MARYLAND.		Petersburg,
Banks in Baltimore,	par	Norfolk,
Hagerstown,	½a	Winchester,
Frederick,	do	Lynchburg,
Westminster,	do	Danville,
Farmers' Bank of Mary'd,	do	Bank of the Valley,
Do. payable at Easton,	do	Branch at Romney,
Salisbury,	5 per ct. dis.	Do. Charlestown,
Cumberland,	½a	Do. Leesburg,
Millington,	do	Wheeling Banks,
DISTRICT.		Ohio Banks, generally 3a4
Washington,	Banks, ½.	New Jersey Banks gen. 1½a2
Georgetown,	do	New York City,
Alexandria,	do	New York State,
PENNSYLVANIA.		Massachusetts,
Philadelphia,	½a	Connecticut,
Chambersburg,	½a	New Hampshire,
Gettysburg,	do	Maine,
Pittsburg,	2a2½	Rhode Island,
York,	½a	North Carolina,
Other Pennsylvania Bks. 1½a2		South Carolina,
Delaware [under \$5] ... 3a4		Georgia,
Do. [over 5] ... 2a½		New Orleans,
Michigan Banks,	5a	
Canadian do.	5a	

AGRICULTURAL AGENCY in Philadelphia, (No. 5, SOUTH FIFTH-STREET.)

THE Subscriber continues to purchase and sell on commission, Cattle, Sheep, Hogs, Asses, and other domestic animals of choice breeds or qualities, suitable for breeders.

He has now on register for sale, the following animals, viz:

VERY VALUABLE SWINE.

One boar and three sows, of the genuine Norfolk thin rined breed, one year old and upwards.

Also, five sows and four boars of the Philadelphia white breed—some nine and the rest twelve months old. Most of the sows of both kinds are supposed to be in pig.

Price twelve and a half cents per pound.

FIRST RATE JACKS AND JENNETS.

Two Jacks and three Jennets, of the largest size and best blood, of good ages, and remarkable fine breeders.

The Jacks are near 14 hands high, and the Jennets 13 hands and upwards. Two of the Jennets are in foal by an imported Maltese Jack, full 14 hands high. Besides these, which are such animals as can seldom be obtained, the subscriber can at all times procure to order good Jacks and Jennets at fair prices.

CHOICE CATTLE.

Several bulls, cows and heifers, of the Improved Durham Short Horn breed, with indisputable and excellent pedigrees, are for sale at prices much below those recent-

ly obtained in this vicinity for animals in no respect better.

MERINO AND BAKEWELL SHEEP.

The subscriber has made ample arrangements to meet this summer the numerous demands upon him for choice breeders of the above kinds.

All orders sent him early, say previous to the first of August next, will be filled promptly from the best flocks in this region, which are believed to be equal to any in the Union.

SHORT WHEAT.

The subscriber is sole agent for the sale of this year's crop of this most extraordinary variety of Polish wheat, for a description of which see Farmer & Gardener, vol. 2, page 164. Price \$5 a bushel. Orders must be forwarded before the end of July, and the wheat must be paid for on delivery.

All letters not containing orders ought to be post paid and directed to J. IRVIN HITCHCOCK, June 1 cow 3t Philadelphia.

FIELD & GARDEN SEEDS, &c.

WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and RARE FIELD seeds, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the Clairmont Seed Gardens, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of Cabbages, Lettuce, Peas, Beans, Cucumbers, &c., none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are 250 bushels Garden Peas of various sorts.

95 bushels Dwarf and Pole Beans. 2000 lbs. Cabbage Seeds. About 35 fine sorts, among which are the Scotch Early York, London Battersea, Flat Dutch, Globe Savoy, Early Harvest, &c.

150 lbs. Cucumber seed, about 12 sorts, among which are Keene's Long Green, Long Green Turkey, &c.

1800 lbs. Radish seeds—principally of Short top Scarlet, Yellow and Red Turnip.

300 lbs. Beet and Mangel wurzel seed. 50 lbs. Green Curled Borecole, or Scotch Kale, purple curled—blue curled, &c.

35 lbs. Cauliflower and Brocoli—best European sorts. 200 lbs. Carrot seed—for garden and field.

75 lbs. Lettuce seed—the curled Silecia, large white or Lazy, brown Dutch and Malta, are best sorts, the latter particularly fine for forcing.

270 lbs. Onion seed—several French and American sorts. Also—Tart Rhubarb seed, Tomato, Egg plant, Squash, Black and Orange Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive &c.

FIELD SEED.

60 bush. English and Italian Rye grass seed. 50 do Green Sward grass, for yards, &c.

1,200 lbs. Scarlet Trefoil or clover, Trifolium incarnatum. 800 lbs. Lucerne or French clover.

50 bush. English and Poland oats. 250 lbs. Skinless or Huskless oats—new—great product. 150 bush. best English and American Early Potatoes.

100 lbs. Gama Grass seed—this grass bears cutting every 15 days, and of course the product is immense. 50 bush. White and Yellow Field corn.

ROBERT SINCLAIR, Jr. Seedsman, Light st. near Pratt.

GAMA GRASS ROOTS.

5000 Gama Grass Roots, just received. Price \$2 per 100. This grass still retains its high character for soiling and great products.

Also in store, a few pounds of GAMA GRASS SEED. Price \$6 per pound or 50c. per ounce.

And will be for sale in a few days, 1300 Double Dahlia FLOWER

ROOTS, embracing all the finest and most rare sorts.—Price 50 a 75 cents, \$1, 1 50 a \$2 each. A liberal discount will be made when one dozen or more are taken.

R. SINCLAIR, Jr. Light, near Pratt st wharf.



THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 9.

BALTIMORE, MD. JUNE 28, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JUNE 28, 1836.

We were conversing on Saturday last, with a most excellent farmer who resides in our vicinity upon the subject of the weather and crops, when he informed us, that his wheat, which had escaped the desolation of the *Hessian Fly*, had become sorely affected with the *Scab*; that it was sickening to look at the ravages it had made; that within the last few days his prospects for a good crop were most brilliant indeed; but now he looked forward to nothing but disappointment.

We published a few numbers back an *imperfect* account of the sale of Mr. Powell's stock of cattle, and take pleasure in supplying the deficiencies in the former one by the one now inserted. The sale is one which will be looked upon hereafter with interest, as proving the high estimation in which the short horned Durhams are deservedly held in this country. The West upon this occasion, it will be seen, stepped forward with that generous spirit of manly enterprise which has ever distinguished her.

THEORY OF VAN MONS AS TO THE MODE OF OBTAINING EXCELLENT FRUIT FROM SEED.

The June number of the Horticultural Register and Gardener's Magazine, contains a most interesting article on Mr. Van Mons' method of raising fruit trees from the seed. The paper was communicated by that distinguished Horticulturist and zealous friend of science, the Hon. Henry A. S. Dearborn, of Massachusetts. Mr. D. has prefaced the *theory* of Mr. Van Mons, with a very minute account of his history, which, from the deep interest it excited in us loses nothing from being prepared by the pen of so ripe a scholar and accomplished a gentleman as is its author. The graphic notice of Mr. Van Mons, as well as being drawn up with much feeling and skill, and, therefore, reflecting great credit upon

its writer, contains many incidents of deep moment to the horticultural world. Our limits will not permit us, or we would with all possible pleasure insert the prefatory article entire, but being thus precluded, we must content ourselves with giving a succinct abstract of Mr. Van Mons' theory, which, while it presents much of novelty and intrepidity, shews that its learned author is possessed of that genuine moral courage essential alike to make a man respected, and to entitle him to the appellation of being a benefactor of his species.

As Mr. Dearborn very properly observes, it is necessary to recall certain circumstances in relation to Mr. Van Mons, to induce the reader to think that when a man of such a temperament, establishes a theory on the regeneration of fruits, after having practised his experiments during fifty consecutive years, it will be received with much greater confidence, as it quadrates with the course of nature.

At the age of fifteen, Mr. Van Mons sowed, in his father's garden, the seeds of perennial flowers, roses and other shrubs, with the design of observing the development, the successive generations, and the variations, which might thus be produced. To these he soon added seeds and stones of the well known fruits, and remarked that of all his young plants, the pears were those which least resembled their parent. He searched the gardens and nurseries, markets and neighboring provinces, to confirm or rectify his first ideas, on the causes of the variation in flowers and fruits.

At the age of 22 years, the basis of his theory was fixed, and he was established as a pharmacoplist. At that time he had a gardener, named Meuris, in whom he discovered a disposition for observation: he initiated him into his pomological views, and in a short time Meuris was capable of laboring with success as well alone as with his master. In their journeys they bought every where, wild and free stocks of fruit trees, which had a favorable appearance. They were so familiar with the characteristics, which the aspect and the wood furnished, that they could purchase as well in winter as in summer. Mr. Van Mons had in a short time 80,000 fruit trees in his nursery.

Mr. Van Mons after a long series of experiments, arrived at this conclusion, or rather established this law, that so long as plants remain in their natural situation, they do not sensibly vary, and their seeds always produce the same, but on changing their climate and territory, several among them vary, some more, and some less, and when they have once departed from their natural state they never again return to it, but are removed more and more therefrom, by successive generations, and produced sufficiently often, distinct races, more or less durable, and that finally if these varieties are carried back to the territory of their ancestors, they will neither represent the character of their parents, or ever return to the species from whence they sprung.

Mr. Van Mons has introduced wild pear trees into the middle of his nursery, of the best perfected varieties; these wild trees, or subnatural species, as he calls them, have not varied, and continued to yield poor acrid fruit; the seeds of this bad fruit have been sown and they have always produced wild trees; and although these wild trees flourish in the midst of the perfected varieties, the seeds of both being sowed, neither produced any hybrids, from which Mr. Van Mons concluded, that there cannot be a cross fecundation between a natural species and a variety. He does not deny that the species can be mutually fecundated, or that the varieties can be in like manner fecundated; but he maintains, that the plants which are the result, never offer an appreciable resemblance, either to the father or mother. The origin, therefore, which Linnæus has given to the *Datisca cannabina* may be considered fabulous. Besides, he does not believe that hybrids are so frequently produced, as has been alleged.

Mr. Van Mons was the first to ascertain and assert, contrary to appearances and common opinion, that double flowers are not a variation, but rather, a sign of what he calls *feebleness*.—This assertion which may be considered bold for the age, has since been ranked among the number of truths, from the fact, that it has been ascertained, there is less solid matter in all the supernumerary petals of a double flower, than there would have been in the seeds, if the flower had not been double. He contends that, all things

besides being equal, a scion taken from an apple grafted on a paradise stock, or from a pear grafted on a quince, does not succeed well when placed on a free stock: that if the paradise and quince render the grafts more precocious, and give a greater volume to the fruit, they impair the vigor of the tree and abridge its life, by not furnishing sufficient nourishment, and that it is just to conclude, that a scion taken from such a tree has already been impaired. From these facts, Mr. Van Mons recommends that scions be always engrafted on free stocks, and that such individuals be selected which appear most to resemble in vigor and physiology the varieties which are to be engrafted upon them.

Mr. Van Mons contends that as long as plants in a state of nature remain in their natal soil, they produce, during their whole lives, seeds which do not degenerate. For instance, seeds taken from a Baobab that was two thousand years old, produced trees like itself quite as well as those which it had borne at the age of twenty years. Wild pear trees in a state of nature and in their native soil, always reproduce seeds, without any sensible variation. It is not the same with plants born in a state of variation, either in consequence of having changed the climate, the territory, or some other unknown cause. The seeds which a domesticated pear—(that is to say, one which has been for a long time in a state of variation) yields at its hundredth fructification, produces trees not only very different from itself in consequence of its being only a variety—and the bounds of variation are not known in descending from parent to son—but still very different from the trees which have been produced from the seed of its first fructification; and the older a domesticated pear becomes, the nearer do the trees produced from its latest seeds approach to a state of nature, without, nevertheless, being able ever to return to it.

Mr. Van Mons further asserts, that as the seeds of the first fructification of an annual plant, in a state of variation, produces plants which may vary without removing far from the state of their parent, while on the contrary, the seeds which are yielded by the hundredth fructification of a domesticated pear of excellent quality, or for a long time in a state of variation, produce a great variety of trees, which neither resemble their parent, and whose fruit almost always detestable, are more or less near to a wild state: this difference should have its cause in an unfavorable modification,—in a degeneracy which the seed of the pear undergoes in consequence of the age of the variety which bore it.

Mr. Van Mons advances this as the result of his experience—that by sowing the first seeds of a new variety of fruit tree, there should be obtained trees always variable in their seeds, because they can no longer escape from the condition, and which are less disposed to return towards a wild state than those produced from seeds of an ancient variety; and as those which tend to a wild state have a less chance of becoming perfect, according to our tastes, than those which are in the open field of vegetation, it is in the seminary of the first seeds of the newest varieties of fruit trees that we should expect to find more perfect parts according to our tastes.

The method by which he has tested the truth of his theory may be briefly stated. He has successively and without interruption sowed the first seed of a pear tree, for instance, for eight generations, always taking the seed of the tree that bore the best fruit, by which he proved that each succeeding generation produced more perfect fruit than the succeeding one.

A similar experiment made upon the apple yielded no other than good fruit in the fourth generation. The stone fruits, as the peach, apricot, plum and cherry, became perfect in a still shorter time: all of them produced good fruits in the third generation.

The experiments made by Mr. Van Mons justify these conclusions: that excellent fruits can be obtained in from 12 to 15 years from the stones of peaches, apricots, plums and cherries; from apples in about 20 years. With regard to pears the difficulty is greater and requires about 36 years. A remarkable fact developed itself in the course of Mr. Van Mons' experiments—it is this—that the tree of each successive planting of the seed yielded fruit in a fewer number of years than the preceding one. For example, the trees from the second sowing of the seed of the first generation, yielded their first fruit at the age of from 10 to 12 years as the mean time—those of the third generation at from 8 to 10 years; those of the 4th generation from 6 to 8 years, those of the fifth generation at 6 years, whereas from the 8th generation he obtained several pear trees at the age of 4 years.

Mr. Van Mons considers it an invariable principle that a graft does not bloom sooner than the parent stock from which it was taken; that it is advantageous to collect the fruit a little before it is fully ripe, from which it is desirable to obtain seed for planting, and to leave it to become perfectly mellow and reach a state of decay before extracting the seed or stones.

He prefers the white thorn to the quince for

stocks for grafting the ancient varieties of pears upon, and says that they grow higher, have a more perfect pyramidal form, and produce fruit nearer the trunk.

Mr. Van Mons says that he has remarked, "that the most excellent of the new varieties of pear introduced by him from seed, least resist the ravages of old age, and become sooner old than the varieties whose birth preceded them, and that they cannot attain an age of half a century without decrepitude. The first of these symptoms is that of bearing less constantly and the fruit ripening later. The decay of the wood, the loss of the beautiful form of the tree, and the alteration of the fruit follows at much later periods. The varieties which have existed but half a century do not suffer from the canker at the ends of the branches, nor from diseases of the bark; the fruit does not crack, is not filled with a hard substance, covered with knots, nor insipid, nor dry; the alternates are but a year; their varieties can still be grafted on other trees without their infirmities being augmented, and it will require half a century more to end their sufferings, and the general destruction of the varieties is the only remedy which can be applied to its diseases."

We have thus briefly abstracted the substance of Mr. Van Mons' theory and chiefly confined ourself to the language of the translator, in order that by adhering to the text we might avoid that confusion too often consequent upon mistaking the views of a writer.

TO CURE THE SWELLING OF THE THROAT IN HOGS.

In order to contribute to the usefulness of your valuable periodical, and to inform the public what I find from experience to be an infallible cure for a certain disease in hogs, viz. the swelling of the throat, I herewith send you a receipt for the disease with a desire that you publish the same in your work if you deem it of any import, and the same meets your approbation.

Take of molasses one half pint and a table spoon full of hogs' lard—to this add of brimstone a piece an inch in length. Melt it over the fire, and when cold or in a liquid state, drench the hog with it; and nine times out of ten it will be found to have the desired effect. My hogs were affected with this disease during the past year, and I found the above to be effective when all things else failed.—*Farmers' Register.*

Note by the Editor of the Farmer & Gardener.—We have no doubt as to the efficacy of the above prescription, but the trouble of melting the brimstone can just as well be avoided, by substituting flower of sulphur for the roll brimstone, and we have no question that if a tea-spoonful of cayenne or black pepper were added, the pre-

scription would prove much more prompt in its curative effects. The compound of molasses, hogs' lard and brimstone, can only act in their combined form as aperient and cooling; but if the cayenne should be added, a decided improvement so far as the swelling of the throat may be concerned, would be effected; it would then act as a stimulant upon the indurated glands of the throat, thus giving them resolution and enabling them to resume their wonted action, and take up the superabundant secretions, and thus restore a healthful condition to the affected parts.

OF THE LEAVES OF THE *MACLURA AURANTIA*, (*Osage Orange*) AS A SUBSTITUTE FOR THOSE OF THE MULBERRY, AS FOOD FOR SILK WORMS.

By M. MATTHEW BONAFOUS, Director of the Royal Garden of Botany and Agriculture, at Turin.

Translated for the Farmers' Register, from the *Annales de l'Agriculture Francaise*, of Oct., 1835.

["The following facts—which with more of assurance, promise the attainment of the long desired substitute for the leaves of the mulberry, when the leaves of the latter are destroyed by late frosts—are the more important in this country, because the *maclura aurantia* is a native of North America, and grows naturally in regions where the climate is more rigorous than in the middle Atlantic states. The late frosts that unexpectedly destroy the young leaves of the mulberry, and would leave the silk grower without means of keeping alive his newly hatched worms, are of rare occurrence: but whenever they do occur, without sufficient precautions, the worms must perish—and the whole business of that year will be at an end. Hence the great value of any plant that can furnish a cheap and sufficient substitute for the mulberry, during the short duration of such seasons of scarcity.

There can be no higher European authority on this whole subject than M. Bonafous; but still it would be desirable to have his experiments repeated in this country. We would especially request this of a gentleman in Goochland, who has the Osage orange growing, and to whom we were indebted for the account of it, published at p. 543 of this volume—and to whom we regret to say, this Journal has been indebted for no other original matter, although we have frequently, and with pleasure, copied his communications to other and distant papers. Of such preference, however, we have no right to complain.]

The production of silk has become so fertile a source of riches, that the frosts of spring cannot cause injury to the young leaves of the mulberry, without affecting seriously the interests of agriculture, and of industry in general.

To preserve this tree from the frosts, which so often occur unexpectedly even at the moment when the silk worms are about to come out of the eggs, has induced cultivators to adopt various measures—as planting in the best exposures; heaping earth about the lower part of the trunk in autumn, covering with straw, and throwing manure over the roots, &c. But these precau-

tions are commonly useless, if the frost occurs after the sap of the mulberry is rising.

Researches have also been made to find some plant that could supply the place of mulberry, when late frosts suspend its vegetation. The wild bramble, the rose, the elm, *l'epine vinette*, the maple of Tartary, the Spanish scorzonera, and lastly, the *cameline*, have been proposed as substitutes; and if experience proves that some of these plants may feed the silk worm, it also proves that they cannot make it produce the glutinous [*resineuse*] matter, considered necessary to the formation of the cocoon.

I was thence induced to believe that it would be difficult to discover a substance both suitable to take the place of the mulberry, and able to resist frosts. However, being at Montpellier, in April, 1834, when the cold of four degrees, (of Reaumur) below zero, injured a great number of mulberry trees, I was curious to study the effects of the cold upon a multitude of plants cultivated in the *Jardin de l'Ecole de Medicine*; and having observed that a tree of the family of the *utricées* (which botanists do not distinguish from the mulberry, except by its flower having a single style,) had resisted this lowering of temperature, while the white mulberry, the black, that of the Philippines [or Chinese] and the mulberry of Constantinople, had not been able to support it, I thought it useful to ascertain whether this tree, recently introduced into Europe under the name of the *Maclura Aurantia*, could be successfully employed for the nourishment of silk worms.

For this purpose I had hatched the eggs of a Syrian variety of silk worms, which I had received, and scarcely had the worms left the eggs, when I formed of them two divisions, which I fed in the same locality, the one with the leaves of the *Maclura*, and the other with those of the white mulberry. The worms fed with the *maclura* had a more rapid growth during the two first ages: but afterwards, the worms fed with mulberry leaves, in their turn, took the superiority over the others, and maintained the superiority up to the time of their climbing. The worms fed with the *maclura*, acquired a greenish tint, which made them easily distinguishable from the others; and although at a later time by seven or eight days, they formed cocoons of a regular structure, and of as firm a texture, as those of the worms fed by mulberry leaves: such were the cocoons of M. Farel, correspondent of the *Societe Royale et Central d'Agriculture*, sent me from Montpellier, as soon as he had completed (under the eyes of the agricultural society of Herault,) the comparative rearing of the two kinds, which my leaving the department had not permitted me to conduct myself, to its termination.

It follows then, from this fact, that the *maclura aurantia*, without offering all the qualities which render the mulberry so well suited for feeding silk worms, presents still a most important advantage, that of not being injured by a degree of cold which the mulberry cannot endure, and of being able to supply its place, until the mulberry shall have put out a second growth of leaves. It is true that I cannot mark the limit at which the *maclura* ceases to vegetate in Europe, however, I can affirm that it has never yet been

injured by freezing in the Botanic Gardens of Paris, of Strasburg, of Geneva, &c., nor in that [of Turin] which is under my direction, where I introduced this tree five or six years ago.

In calling the attention of agriculturists to this first experiment, I would wish to induce those who are engaged in silk culture, to plant some stocks of *maclura*, to supply nourishment to their worms, when the leaves of the mulberry are nipped by frost. A *maclura* of 12 to 15 feet in height, such as that of Montpellier, which served for my experiment, will suffice for feeding, during the two first ages, as many worms as will be produced from two to three ounces of eggs.

Originally from North America, where it grows on the banks of the Missouri, and in the country of Natchez, the *maclura aurantia* rises to 30 feet high, with a diameter of 6 to 8 inches. Its trunk is milk-yielding, and covered with bark that is readily divided into threads, and the branches are flexible, and armed with thorns, which disappear at an adult age, as I have observed on the tree at Montpellier. The roots yield a lively yellow tint. The leaves are alternate, on foot-stalks entire, 5 to 6 inches long, and 2 to 3 wide, oval and acuminate, glossy on the upper surface, and slightly hairy on the lower, of an acrid taste, and becoming dry less quickly than those of the mulberry. The male of flowers forming a lengthened spike, [*chaton*] presents a calyx of four divisions, without corolla, and four stamens. The female flowers, borne upon another stem, have a smaller calyx, without corolla, a thread-like style, hairy, and numerous ovaries united in a spherical spike. The fruit is a pulp with many cells, of the size and color of an orange, good to eat, as some say, but not eatable according to Michaux, to whom we owe the introduction of this tree. Each cell encloses a compressed oval seed.

The *maclura aurantia*, on account of its points of relation to the mulberry of the Osages—the name of a tribe of savages who inhabit Louisiana, and who use its branches to make their bows. It thrives well on both fertile and inferior soils, and is reproduced easily by seeds, by layers, by grafts upon the paper mulberry, (*broussonetia papyrifera*), and still better, by slips of its young branches or roots. In this last mode of multiplication, which I believe the most proper, the roots are cut, when they are nearly the size of the finger, into lengths of 7 or 8 inches; the pieces are planted in a cool and sheltered place, and not leaving but 2 or 3 lines of each above the ground. The plant succeeds equally well as a standard, in a hedge, in shrubbery, or as an espalier.

The utility of the *maclura aurantia*, considered as an auxiliary of the mulberry, its resistance of late frosts, the elegance of its form, the facility with which it can be multiplied, the vigor of its growth, and the pliability of its branches which permits their being applied to various use,—all these qualities assign to it a distinguished rank among the foreign trees, that are the most suitable to enrich our agriculture, and to embellish our country.

Incessant attention is as necessary to the success of a farmer as is well directed exertions, for the best of laborers require watching.

[From the New York Farmer.]

THOUGHTS, ON THE SELECTION, BREEDING, AND FATTENING FOR MARKET, OF NEAT OR HORNED CATTLE.

It will, doubtless, be admitted, that the husbandmen of America, are behind those of some parts of Europe, England, our mother country, in particular, in scientific as well as practical agriculture, especially that branch which appertains to selecting, breeding, and rearing domestic animals; the improved breeds of both horses or neat or horned cattle, in the Island of Great Britain, surpassing at this day, those of any other country in Europe.

Fortunately for us, some spirited agriculturists have, of late years, introduced to the State of New-York, as also other sections of the Union, the most approved breeds of English cattle; but the points which constitute their superior qualifications, and gives them an additional and intrinsic value, are at this day but partially understood; nor do our husbandmen or breeders, with few exceptions, appear to have that knowledge of the subject and discriminating judgment, requisite for the selection of individuals, or making choice of the breeds that will repay them best for their care, and give the largest return for the capital employed, or for the quantity of provender expended in their support, and bringing them to maturity, whether in the light of breeding and rearing in the first stage, or fattening for market in the second.

I have, with peculiar interest, some years past, attended the meetings of the Massachusetts Berkshire, and Brighton Agricultural Fairs, held by the Societies, for the express purpose of inspecting their cattle, and have viewed the stock in many districts of that and other states. Although much credit is due to the gentlemen and breeders of Massachusetts, as also to many in other states, who have displayed great zeal and persevering industry, and in addition expended much money, in the importation of English breeds, favorites of the present day, yet by far the greater part of our farmers have fallen into the prevalent error, of adhering and sacrificing every thing to *size*, too often emanating from large bones, and disproportioned, corpulent masses, tending to constitute a huge coarse animal, their pride and aim being directed, as it were, to the production of a beast of large dimensions, that will fatten to an extraordinary weight, no matter what the cost, to the exclusion of those valuable qualifications, which constitute *profitable stock*, such as I shall hereafter endeavor to describe.

Strange as it may appear, it is questionable if even drovers, who are in the constant practice of purchasing fat cattle for the butchers, or for a distant market, are proper judges of the kind of stock to which I allude. Their discernment is directed to an object very different from that of the consideration of the profit and loss account of the breeder or feeder; it wholly consists in estimating from a view of the animal when alive, what it will weigh when arrived at market and there slaughtered, and ascertaining from the handling of certain points, whether the subject is sufficiently fat for the shambles, and to what degree of perfection this fattening process has been

carried. It is no part of their business to calculate what it has cost the breeder to rear an ox of a particular size or kind, or the feeder to make him fat. They care not whether the feeder has incurred a loss or realized a profit; it is sufficient for their purpose, that the animal is fat, and from habit, and almost daily practice, their judgment in this particular, and in estimating weight, becomes mechanical and unerring.

If these drovers presume to offer an opinion as to the selection of the most profitable stock to breed from, or to feed, it is calculated to advance their own interest and that of their constant customers, the butchers, whom it behooves them to please, but by no means, that of breeder or feeder, especially should the latter agree to take a given price by weight when slaughtered, or chance to venture forth to a city market.

I have said, and I repeat it, with a view of impressing what I here advance, on the minds of husbandmen, that the interest of the drovers is amalgamated with that of the butchers, for whom the former buy, but differs widely from that of the farmer or feeder, as to the profits to be derived from cattle when bought and sold by the weight, after being slaughtered, a circumstance very imperfectly understood by farmers, which I shall explain.

In buying and selling by weight, there are two modes practised as to weighing; the one, that of *sinking the offal*, as it is termed, that is, weighing only the *four quarters, or carcase, when dressed*, without taking into account the weight of the *hide and tallow*.

The other mode is termed, *weighing all round*, that is, estimating in the aggregate, the weight of *beef, hide and tallow*.

The former mode (of sinking the offal,) is pursued in the city of New York, and some other large cities; the latter method is practised in country towns, and in the country generally.

The hide and tallow are equal in weight to 20 per cent., or one-fifth, of the whole weight of the animal, after being slaughtered and dressed, when well fattened, but if very fat, somewhat more, and is sometimes absurdly called the *fifth quarter*.

It is to be observed, that the New York butcher pays only for the weight of the *four quarters*; that is, the *beef, or carcase, when dressed*, and *pockets* the hide and tallow as clear profit of 20 per cent. even should he retail out the beef on his stall for the same sum that he paid, but he always has a further profit on it. Consequently, *the lighter the beef weighs, for which he has to pay, and the heavier the tallow and hide, for which he pays nothing, the greater his profits, and the less those of the feeder.*

It is an established fact, well understood by medical men, as also by experienced and scientific feeders, that there is a certain pitch, beyond which the process of fattening cannot be carried, inasmuch as that the system or constitution of the animal, or organs of life, will admit of only a given quantity of fat or suet, whether deposited in the intestines, or mixed throughout the meat; consequently, the more the beef or flesh is interlarded with fat, the less remains to be attached to the intestines, or to add to the weight of what is termed the *caul*; and vice versa.

It is beyond dispute, that those cattle whose flesh is intermixed, marble-like, with fat throughout, weigh heaviest, when dressed, in proportion to the dimensions of the carcase, the beef, owing to that circumstance, being full of nutritious matter; on the other hand, those whose flesh is void of this beautiful red and white, variegated mixture of fat and lean, whose meat cuts up red, and sometimes what is worse, of a dark color, resembling horse-flesh, technically called *lyrey*, weigh lighter in the carcase, or quarters, when dressed, although they may have a larger proportionate weight of caul or gut fat, or rough tallow, in consequence of the fat being more externally and abstractedly lodged in the intestines.

We will suppose that two oxen, when put up to fatten, weighed eight hundred pounds each, beef, hide, and tallow included; the one, of that breed which was disposed to mix or marble the flesh throughout with fat—the other, one of those whose flesh did not become thus variegated, but continued, as before, red, being merely coated on the out and inside with a portion of fat. These two beasts shall be stall fed for six months, each having daily the same allowance of food in quantity, kind, and quality, and in all respects be treated with the same attention. At the expiration of the six months, they are sold to a New-York butcher, at say \$10 per cwt. slaughtered and weighed. Which do you suppose, reader, will give the greatest return to the feeder, for the given quantity of provender which each has consumed? The former, unquestionably—he will weigh much heavier in the beef, that is, the four quarters when dressed, he will have a less ratio of gut fat or rough tallow, and his hide will be thinner, and consequently, lighter than his competitor, he will probably have arrived at the gross weight of 1,300 lbs.—of which aggregate, his beef when dressed, will weigh 1000 lbs. rough tallow or gut fat 200 lbs., hide 100 lbs.—The other bullock, we will venture to say, will not in toto come up to 1,200 lbs. in the following proportions: beef, when dressed, about 850 lbs., rough tallow 200 lbs., hide 110 lbs. making a total of 1,160 lbs. Now the city butcher, who pays only for the beef, gets, as it were, a clear profit of 200 lbs. of tallow, and 100 of hide, upon his payment in the one case of \$100—whereas, in the other, he obtains the like quantity of tallow with 10lbs. more of hide, for only \$85. It is true, he gets in the first case 100 lbs. the most beef, but this is by no means equal to \$15—the difference in the cost of the two animals, equal to 15 per cent., which, at the same time, is the precise difference to the feeder, in fattening the one or the other of these distinct breeds. But suppose the feeder, in place of selling to a city butcher, is situate remote from any large town, and disposes of his cattle for packing or barreling, where the custom is to weigh “all round,” as it is termed, taking into the estimate the gross weight of beef, hide and tallow. The same argument here prevails, the aggregate weight of the ox which intermixes the flesh and suet being the greatest. This position may appear to rest upon naked assertion, but it is a theory well known to all cattle feeders of experience, that animals of this last description fatten most quickly, and come to the greatest weight upon a given quan-

tity of food. Let the breeder and feeder of cattle bear in mind, that all live stock are mere machines, made use of by the husbandman to convert provender into money, consequently that which produces the largest sum in return for a given quantity of provender expended, is the best. Here, then, is the basis upon which the cattle dealer or farmer is to rest his choice.

There are certain rules to be adhered to in this branch of the agriculturist's pursuits, without a strict observance of which, he will waste his time and employ his capital to little purpose, at all events, will never bring his stock to that excellence so much desired, and so easily to be attained. Numbers are not so much to be sought after, as a well chosen stock proportioned to the means of support; a few, well attended to, will afford a surer, as well as a greater profit, a large number worse fed, and occasionally neglected; for it is a maxim to be strictly observed, that condition gained, ought never to be lost, or even allowed in the least to recede.

In making selection of a breeding stock, there are four qualifications to be minutely attended to; these may be considered the four points of perfection:—1st, beauty of form; 2d, utility of form; 3d, texture or grain of the flesh; 4th, the fattening quality, or propensity to become fat quickly, and at an early age.

By beauty of form is meant that symmetry or due proportion throughout the frame, which constitutes strength, agility and facility of movement, which though much to be desired, is not to be sought after to the exclusion, or interference with what is termed *utility of form*, which the care and discernment of eminent breeders have constituted, by improving the principal parts, or prime cuts of the carcase, when offered for sale on the butcher's stall, both as to quantity and quality, and in the same ratio decreasing the coarse and offal parts.

Texture or grain of the flesh, is the difference between coarse open, or lyrey, or black flesh, and fine close grained meat, of a lively, bright red color.

The fattening quality, and the disposition to become quickly fat, and at an early age, is an indispensable requisite to the agriculturist; upon this qualification his loss or gain, in a great measure depends; and this so essentially requisite, is innate.

The discriminating judgment, unremitting attention and perseverance, during many years of that celebrated breeder, the late Mr. Bakewell, of Dishly, in Leicestershire, England, produced an improvement in both cattle and sheep unprecedented. His cattle were of the kind designated as the Lancashire Long Horns, from their having long and very slender horns, and by way of distinction from another race, their rivals and competitors for favor, called the Short Horns, Durham, Teeswater, or Holderness breed.

The most eminent breeders for many years, differed as to the preference of these two classes. During the lifetime of Mr. Bakewell, owing no doubt to his superior management, and unequalled talent at selection and crossing, the Long Horns, may be said to have borne the sway.—Yet, notwithstanding his success and example, other spirited agriculturists, distinguished for their judgment and foresight, particularly those resi-

ding in the Bishopric of Durham, and that fertile district in the northern parts of Yorkshire through which the river Tees flows, could not be induced to yield the palm to the long-horned race. Of these eminent breeders was Charles Colling, Esq., of Kelton, Robert Colling, Esq., of Bramp-ton near Darlington, in the county of Durham, James Brown, of Aldborough near Darlington, John Nicholson, of Gipton near Leeds, Mr. Charge, near Richmond in Yorkshire, Thomas Thackeray, of Pickhill near Bedale, J. Wade, of Cinderly, Mr. Weatherill, of Fieldhead, &c., practical men of great science, who, differing with Mr. Bakewell in their selections, have, by perseverance and superior judgment, brought the short-horn breed to a degree of perfection, surpassing in beauty, utility and profit, all other cattle of the present day—yielding a larger supply of milk, feeding to greater weight, having a propensity to become fat at an early age, affording fine grained meat, beautifully intermixed with fat throughout, having thin hides, carrying their greatest weight in their hind quarters, and the choice pieces when cut up, yielding a just proportion of tallow, having small bones, with fine clean heads and light necks, void of that great coarse gullet and dew-lap generally the property of heavy cattle; affording a less proportion of coarse meat of little value when exposed for sale on the butcher's stall, and less offal, than any other breed, a thing in itself of great consideration, for if the fattener of cattle feeds a bullock that is by nature coarse, having, before the fattening process commences, a large proportion of weight in these offal parts of little value when killed and cut up, and the animal gains 50 per cent weight, in being fattened, the offal or coarse parts will increase in the same ratio, as the prime peices, and thus the feeder will have expended provender in increasing the weight of an undue proportion of offal and meat, in place of that doubly valuable; in addition to which, in the fine formed or fine pointed bullock, will always be found a disposition to throw up flesh and become fat much sooner, and at a less charge for provender than the coarser made animal.

I have now, Mr. Editor, endeavoured briefly to show the advantage to be derived from the possession of this improved short-horned race of cattle, which the breeders of Kentucky and Ohio have happily introduced, a fine specimen of which those of Ohio will have an opportunity of viewing, upon the farm of Mr. Lewis Beach, in the town of Lebanon, in Warren county, about twenty miles from Cincinnati.

Should the foregoing remarks be deemed of interest or utility, I may be induced to extend them.

AN OLD BREEDER OF CATTLE.

TILLING ORCHARDS.

There are advantages and disadvantages in tilling an orchard. In tilling ground, trees are the most vigorous and thrifty; and it seems to be in a measure necessary to plough a few years to give the young trees a start. Yet even at this period great care is required not to cut the roots with the plough. But when the trees have acquired six or eight years growth and the roots become extended, still greater precaution is necessary, or the injury becomes serious. It is not

altogether the large roots that are so liable to be cut, for these are often below the plough, but the innumerable fibres that spread in every direction, which escape the ploughman's notice, but which are literally the mouths that convey food to the plant. My practice has been, when an orchard is to be ploughed, to proceed first to dig the ground sufficiently with the spade, about the tree, two or three feet in breadth, and so many yards lengthwise of the furrows, so that there shall be no balk, and to run the plough shallow near the dug part; and when the orchard is in grass, to dig circles round the trees after harvest, both to facilitate growth, and to prevent injury in winter from moles. There is no less caution necessary in using the spade than the plough, to preserve the roots entire. It is a good practice to cut the grass close with a hoe, and then to strew rotten chip dung, if mixed with a little lime the better, about the tree.—*New England Farmer*.

EMANCIPATION.

Condition of the Descendants of a number of emancipated slaves in Prince Edward county. To the Editor of the Farmers' Register.

RICHMOND, MARCH 23d, 1836.

You expressed a wish (page —, vol. 3d,) to obtain information in relation to the history of the emancipated slaves in Prince Edward; I presume those emancipated by the late Richard Randolph more especially.

More than twenty-five years ago, I think they were liberated, at which time they numbered about one hundred and were settled upon small parcels of land of 10 to 25 acres to each family. As long as the habits of industry, which they had acquired while slaves, lasted, they continued to increase in numbers, and lived in some degree of comfort—but as soon as this was lost, and most of those who had been many years in slavery either died or became old and infirm, and a new race, raised in idleness and vice, sprang up, they began not only to be idle and vicious, but to diminish instead of increasing, and have continued to diminish in numbers very regularly every year.—and that too without emigration; for they have almost without exception, remained together in the same situation as at first placed, to this day.

Idleness, poverty, and dissipation, are the agents which continue to diminish their numbers and to render them wretched in the extreme, as well as a great pest, and heavy tax upon the neighborhood in which they live. There is so little of industry, and so much of dissipation amongst them, that it is impossible that the females can rear their families of children—and the consequence is, that they prostitute themselves, and consequently have few children—and the operations of time, profligacy, and disease, more than keep pace with any increase among them. Whilst they are a very great pest and heavy tax upon the community, it is most obvious, they themselves are infinitely worsted by the exchange from slavery to liberty—if, indeed, their condition deserves that name.

JAMES MADISON.

FEMALE INDUSTRY.—The following facts are not only creditable to the female industry of the country, but conclusively prove that female labor, when judiciously applied receives its full reward. Last summer a venerable matron of Franklin county, Pa. seventy-six years of age, with the aid of a girl, in five weeks made and sold silk to the amount of \$60, besides attending to the ordinary duties of her household. Two young ladies in the same county, in about six weeks, made silk, sufficient for 400 skeins of sewing silk, which, at five cents a skein, amounted to \$200.

There are growing in the town of Hebron in this state, eight White mulberry trees from ten to twelve years old, from which silk was made the last summer by two young ladies of Mansfield. They spent five or six weeks in Hebron, and after paying all expenses of board, &c. carried home \$60. Another young lady in Mansfield made silk the last summer at the halves. She made and reeled in nine weeks twenty pounds, worth at least \$4.50 a pound. By this it will be seen that her share amounted to \$45, and that she received \$5 a week for her labor.—*Silk Culturist*.

[From the New-York Farmer.]

GREAT SALE OF DURHAM CATTLE.

MR. MINOR—SIR—Being an admirer as well as a breeder of the "Improved Durham Short Horned" Cattle, I attended the late public sale of J. Hare Powel's celebrated stock, consisting of bulls, cows and heifers, in all twenty-five, from eight days to ten years of age.

The animals were turned on to his lawn, in front of his mansion, and seemed conscious of their superiority, as they moved about with all the majesty imaginable.—They were in fine condition, and showed off to the best advantage.

"Whatever differences of opinion may prevail respecting the comparative merits of our several breeds of cattle," says a writer on cattle, "it must be admitted, that the short horns present themselves to notice under circumstances of peculiar interest. Possessing in an eminent degree a combination of qualities, which have generally been considered incompatible, and rendered irresistibly attractive to the eye, by their splendid frames and beautifully varied colors, it is not surprising that they have realized for their breeders enormous sums of money; and that throughout our own island, and in every foreign country where agriculture is attended to, they are in increasing request."

The auctioneer's hammer has unequivocally tested the estimation in which this very superior breed of cattle are held, and I regret to say that Ohio and Kentucky are to receive pretty much all the benefits from them. Although the prices would seem high to some, still, they are much below what the same *strain of blood* could be purchased for in England. I had an opportunity of examining those imported by the Ohio company last August, and think they would suffer in comparison with Mr. Powel's herd, although they were beef.

Below is a catalogue of Mr. Powel's sale of "Improved Durham Short Horned" cattle, at Powelton, April 25th, 1836.

No.	Names.	Dam.	Sire.	Price.	By whom purchased.
1.	Mandane,	Mary Ann,	Richmond,	\$600.	Mr. White of Kentucky.
2.	Mandane II., 2 years,	Mandane.	Bertram,	510.	Mr. Gratz, of Kentucky.
3.	Ohio, 17 months,	Mandane,	Mercutio,	700.	Mr. Smith of Ohio.
4.	Belina II., 5 years,	Belina,	Malcolm,	560.	Mr. Gratz, of Kentucky.
5.	Belina III., calf,	Belina,	Bertram,	300.	Mr. Neff, of Ohio.
6.	Bertram II., 2 years,	Belina, II.,	Bertram,	500.	Mr. Cruger, Virginia.
7.	Desdmona II., 2 years,	Zulmda,	Bertram,	580.	Mr. Martin, of Kentucky.
8.	Bertram IV., 5 weeks,	Desdmona II.,	Bertram II.	260.	J. Purvis, of Penn.
9.	Virginia II. 2 years,	Lucella,	Bertram,	500.	Mr. Gratz, of Kentucky.
10.	Virginia III., 2 years,	Lucella II.,	Bertram,	440.	J. Purvis, of Penn.
11.	Florinda II., 3 years,	Florinda,	Bertram,	590.	Mr. Brent, of Kentucky.
12.	Adonis, 1½ years,	Belina II.	Mercutio,	260.	Mr. Denning, of Penn.
13.	Blockley, 10 months,	Virginia II.,	Bertram II.,	305.	Mr. Martin, of Kentucky.
14.	Labin, 10 months,	Virginia III.,	Bertram II.,	205.	Mr. Morgan, of Conn.
15.	Denton II., 10 months,	Florinda II.,	Bertram, II.,	510.	Dr. H. Thayer, of Penn.
16.	Burletta, 3 years,	Burletta,	Bertram,	340.	Mr. Martin, of Kentucky.
17.	Ruby II., 3 years,		Bertram,	290.	Mr. Brent, of Kentucky.
18.	Defiance, 9 months	Ruby II.,	Bertram, II.,	290.	Mr. Barney, of Penn.
19.	Frolic, 30 months,	Lady Beauty,	Bertram,	320.	Bid in by Mr. Powel.
20.	Powelton, calf,	Burletta II.,	Bertram II.,	180.	Mr. Harris, of N. Jersey.
21.	Daphne,	Coquette,	Wye Comet,	100.	Mr. Neff, of Kentucky.
22.	Daphne II., 2 years,	Daphne,	Emperor,	180.	Mr. Barney of Penn.
23.	York Belle, 2 years,	Martha,	Emperor,	155.	Mr. Barney of Penn.
24.	Mandane III., 8 weeks,	Mandane,	Bertram II.,	150.	Mr. White of Kentucky.
25.	Oseola V.. 8 days,	Virginia III.,	Bertram II.,	120.	Mr. Martin, of Kentucky.

\$8850

Here is an average of three hundred and fifty-four dollars per head, and one-third of them less than one year old. This, I believe, was the greatest sale of Durham cattle ever made in this country.

[From the Indiana Aurora.]

TO THE AGRICULTURAL SOCIETY OF INDIANA.

Gentlemen: As your society was formed for the purpose of promoting the interests of Agriculture generally, in the state, I submit to your consideration a sketch of the English method of hedge and ditch fencing, and a few observations on the benefits likely to accrue from the introduction of that method of fencing in this state.

The Method of raising Thorn Plants.

The seed is sown in rows about a hoe's breadth apart, so that the plants can be hoed and kept clean. When the plants have had a summer's growth, they are fit for planting out in fences. Fences are made in various ways, but the way that they are commonly made, is, to make a ditch, say three feet wide at the top, two feet deep, and sloping on both sides to about sixteen inches wide at the bottom. All the earth that is thrown out of the ditch is thrown on that side that is intended to be enclosed. It will now be a tolerable fence, being something more than four and a half feet from the bottom or opposite side of the ditch to the top of the thrown up earth. The thorn planted when, and as the ditch is made. Lay the plants on the solid ground horizontally, about four inches apart, with their tops towards the end of the ditch. Then the first layer of earth is laid on them, it is trampled down firmly, that the plants may the more readily take root. The fence will still be incomplete until the thorns grow sufficiently to make it so: in the meantime, a hedge of bushwood is made along the top of the thrown up earth, which will last six or seven years. By that time the thorn if it has been properly tended, will have grown sufficiently strong to be a complete fence of itself; or a temporary fence might be made by driving a row of stakes down

along the top of the thrown up earth, about two feet apart, and winding brushwood in them. This is called *stake and rider*: or stakes might be placed in the ditch; and short stakes on the other side of the fence, and staked and ridered. Either of these temporary fences to be seven feet high from the bottom of the ditch. Forest trees are planted along the fence about a rod apart; and there are also ten or twelve trees planted in the corner of each field; these will, in the course of a few years be sufficient for all the purposes required on a farm.

To give a view of this improvement, take for example a quarter section of land, divide it into sixteen ten acre fields; suppose the cost of making the fence to be twenty-five cents a rod; and I think it might be made for that sum, it would amount to four hundred dollars. And if trees were planted a rod apart along these fences, there would be sixteen hundred trees; and ten in each corner of the fields, would be six hundred and forty more, or two thousand two hundred and forty in all. But double that quantity might be planted at first, and thinned out as they were needed. A farm so improved, would be like an elegantly laid out garden; but the most important advantage would be, the land being made dryer by the ditching, would become more healthy. And how many thousands of acres of valuable land would be brought into a state of successful cultivation. It would also increase the value of that which is now in cultivation. I do not know of any other improvement that would have so great a tendency to develop the riches of the soil, and thereby add to the resources of the State. I think I might hazard the assertion that by the improvement of hedge and ditch fencing, one fourth more land would be brought into cultivation. And this mode of fence-

cing must ultimately be adopted, in consequence of the scarcity of timber to construct fences in the usual way. It will not be then a matter of choice but of necessity. It may be asked, why do not farmers adopt the improvement of their own account? The answer is obvious: they do not know how these fences are made or managed. The introduction of improvements by those who do not fully understand them, is necessarily attended with expenses and difficulties, and it would hardly justify an individual to make an experiment on such a scale as would be a fair test for the introduction. But admitting it succeeded to his expectation, all that could be reasonably expected from it, would be, to set an example to his neighbors; and it would not be likely to contribute much to bring it into general use; whereas, by the influence of an enlightened society, the improvement might become general in a few years; therefore I believe it to be the duty, as well as the interest, of the agricultural society of Indiana, to exert its influence to introduce this important improvement into this state. I would go farther,—I think the society ought either to offer premiums for the introduction of thorn nurseries into the State, or to establish a thorn nursery itself, and employ an intelligent nurseryman to raise the thorn; show purchasers specimens of fences with an account of the cost of constructing, and method of managing them. County Agricultural Societies might also co-operate with the State Society, by offering premiums for the best thorn fence in their respective counties.

Should the Society see proper to adopt measures to introduce this improvement into the State, and I cannot conceive any reason why it should not, it would be necessary for it to obtain as much information on the subject as possible. For this purpose, I would suggest that the Society correspond with Sir John Sinclair, the able editor of the Farmers' Magazine, published in Edinburgh, in Scotland, (if he is still alive,) from whom ample information would be obtained.

When we consider the great quantity of timber that would be saved and produced, the advantage would be great; but it would be of more advantage in the prairies, a considerable part of which cannot be settled for want of timber, and to the wet land, that would be laid dry and rendered fit for agricultural purposes, or valuable for meadows. For the attainment of these objects, to say nothing of the beneficial effect it would have on the health of the citizens, certainly merits your attention, besides, the citizens look to you to take the lead in these improvements. Trusting these suggestions may meet your approbation,

I remain, yours respectfully,

ROBERT WATTS.

Jefferson, Clinton Co. Jan. 6, 1836.

WEST HARTFORD WHEAT.—We are told that the West Hartford Wheat mentioned in the Farmer for May, was part of the produce of a very large field, which averaged thirty-three bushels to the acre. Where is the farmer in the far-famed Genesee country, or in Illinois, who is doing a better business than to raise such crops in Vermont? What would the reader say if

we should assure him that the man who raised this crop had last year a clear profit from his farm amounting to several hundred dollars more than the Governor's salary, and to more than his whole property was worth ten years ago; and that this prosperity is entirely the result of farming in Vermont? We think it more likely than not, that any one should take the trouble to inquire, would find it so.—*Vermont Chronicle*.

MARYLAND HORTICULTURAL SOCIETY.

Anniversary meeting, June 21, 1836.

The Committee on the Treasurer's accounts made a report, which was concurred in.

The several committees on awarding premiums for articles exhibited during the last year, made their reports, which were concurred in.

The committee appointed to propose a list of premiums for the ensuing year, made a report, which was concurred in.

A committee consisting of GIDEON B. SMITH, ZEBULON WATERS and B. I. COHEN, were appointed to revise the Constitution and By-Laws.

EDWARD M. GREENWAY was unanimously elected a member of the Society.

REPORT OF THE COMMITTEE ON VEGETABLES.

The committee on Vegetables report the following awards of premiums, according to the terms and list published, for articles exhibited from the 6th of June, 1835, to the 18th June, 1836.

To W. McBurney for the best cauliflowers	\$5 00
" James Stranoch, do forced lettuce	3 00
" Thomas Dixon, do open ground do.	2 00
" Richard Valentine, do do ground rhubarb	3 00
" Thomas French do beets	3 00
" Caleb Whittemore, do cape brocoli	3 00
" Thomas Kehce, do celery	3 00
" William Feast, do egg plants	3 00
" Thomas Dixon, do tomatoes	3 00
" Peter Coombs do salsify	3 00
" James Maidlow, do pickling cucumbers	3 00
" Thomas Dixon, do Lima beans	3 00
" Peter Nantz, do crooked neck squash	3 00
" Wm. McBurney, do early York cabbages	3 00
" Edmund Kean, do early potatoes	3 00
" Thomas Kehoe, do mushrooms	5 00
" F. E. McHenry, do onions from seed	3 00
" Edmund Kean, do asparagus, the amateur premium of	10 00
" John Feast for his new variety of cucumber, called the "superb Long Green;" a specimen of which measured two feet seven inches, a discretionary premium of	3 00

REPORT OF THE COMMITTEE ON FRUITS.

The committee of Fruit report the following awards of premiums according to the terms and list published, for articles exhibited from the 6th June, 1835, to the 18th June, 1836:

To Samuel Feast, jr. for the best strawberries	\$3 00
" Richard Valentine, do gooseberries	4 00
" Caleb Whittemore, do raspberries	2 00
" Richard Valentine, do grapes	5 00
" Mrs. Forney, do plums	3 00
" Wesley Hancock, do early apples	3 00
" H. V. Somerville, do early peaches	5 00
" Mrs. H. Birkhead, do apricots	2 00
" Robt. Gilmor, Sen. do figs	2 00

" Henry Thompson, do cantaloupes	2 00
" Henry Moore, do pears	10 00
" Peter Coombs a discretionary premium for his late pears	3 00
" Miss E. Schröder a discretionary premium for her fine Spanish chesnuts	3 00
" Gen. T. M. Forman a discretionary premium for his late cherry	3 00

REPORT ON THE ORNAMENTAL DEPARTMENT.

The committee on the Ornamental Department report the following award of premiums:

For the best collection of camillia japonicas, including the greatest number of kinds and finest bloom to Saml. Feast	\$10 00
For the best seedling camillia japonica, to Zebulon Waters	10 00
Do collection of dahlias to John Feast	5 00
Do seedling dahlias to Gideon B. Smith	5 00
Do azeleas to Edward Kurtz	5 00
Do amaryllises to Edward Kurtz	3 00
Do collection of pelargoniums to J. Feast	3 00
Do seedling pelargoniums to Z. Waters	3 00
Do China roses in open ground to S. Feast	2 00
Do chrysanthemums to Mrs. Geo. H. Keerle	2 00
Do carnations, including seedlings, to Z. Waters	2 00
Do Tulips to Thomas Edmondson	2 00
Do Hyacinths to Mrs. B. I. Cohen	2 00
Do primula polyanthuses to Samuel Feast	2 00
Do collection of succulents in bloom to the Gardener of St. Mary's College	5 00
Do collection of herbaceous plants to Jno. Feast	3 00
For the finest and rarest exotic, the amateur premium to Samuel Feast	10 00
A discretionary premium to William Wilson for his fine seedling dahlia, the Huntingdon	5 00

By a resolution of the Society of the 4th of June, 1836, the premiums awarded as above, will be distributed to the several successful competitors at the Fall exhibition.

OFFICERS.—At an election held at the anniversary meeting of the Maryland Horticultural Society, on the 21st of June, the following officers were unanimously chosen for the ensuing year, viz.

B. I. COHEN, President.

Zebulon Waters,

Joseph King, Jr.

John P. Kennedy,

Thos. Edmundson,

Gideon B. Smith, Cor. Secretary.

Gustavus, Smidt, Rec. Secretary.

Edward Kurtz, Treasurer.

COUNCIL.

Samuel Feast,	James Carroll, Jr.
Wm. G. Thomas,	Geo. Duncan,
John Feast,	Geo. H. Keerle,
Dr. R. W. Hall,	Peter Coombs,
E. W. Colburn,	Edward Keen,
Dr. J. J. Cohen,	Caleb Whittemore,
J. P. Kraft,	Dr. Rogers Hoffman,
J. B. Morris,	Robt. A. Taylor,
Chas. E. Wethered,	Henry Rodewald,
Henry Schröder,	Wm. Worthington,
Dr. Julius T. Ducatel,	James Maidlow.
Henry Didier,	

GIDEON B. SMITH Cor. Sec'y.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM.	TO.
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	7 00	8 50
CORN, yellow,.....	bushel.	79	80
White,.....	"	77	78
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18½	20
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	8 00	8 50
Do. do. baker's,.....	"	7 50	8 00
Do. do. Superfine,.....	"	7 00	7 25
SuperHow. st. in good de'd	"	6 87	7 00
" wagon price,.....	"	6 75	6 87
City Mills, extra,.....	"	—	7 25
Do.	"	—	6 87
Susquehanna,.....	"	6 87	—
Rye,.....	"	4 75	4 87
Kiln-dried Meal, in hhds.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
GRASS SEEDS, red Clover,.....	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 50	3 00
Orchard,.....	"	none	2 50
Tall meadow Oat,.....	"	2 25	2 50
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	—	8 00
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"	—	—
OATS,.....	"	40	45
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	4 25
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	78	80
Susquehanna,.....	"	—	85
TOBACCO, crop, common,.....	100 lbs.	4 75	5 00
" brown and red,.....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wraperry, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 90
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	4 25	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	1 60
Red,.....	"	1 50	1 55
WHISKEY, 1st pf. in bbls.	gallon.	34	35
" in hhds.	"	33	33½
" wagon price,.....	"	31	—
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs.	1 25	—
To Wheeling,.....	"	1 50	—
WOOL, Prime & Saxon Fleeces,...	pound.	55 to 68	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,.....	"	38 40	22 24

CONTENTS OF THIS NUMBER.

The scab in wheat—notice of sale of Mr. Powell's stock of cattle—theory of Van Mons as to the mode of obtaining excellent fruit from seed—cure for swelling of the throat in hogs—the *Maclura Aurantia* a substitute for the mulberry for silk worms—thoughts on selection, &c. of horned cattle—tilling orchards—Mr. Madison's letter on effects of emancipation—female industry—great sale of Mr. Powell's Durham cattle—method of raising thorn plants—West Hartford wheat—annual report of Maryland Horticultural Society—prices current, advertisements.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	15	17
Shoulders,.....do.....	"	12	—
Middlings,.....do.....	"	13	14
Assorted, country,.....	"	11	13½
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	20
CIDER,.....	barrel.	—	—
Calves, three to six weeks old...	each.	4 50	6 00
Cows, new milch,.....	"	25 00	50 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 75	1 81
CHOP RYE,.....	"	1 75	1 81
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 37	—
Mackerel, No. 2,.....No. 3	"	—	—
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....do	do	Farmers Bank of Virginia 2½
Other Branches,.....do	do	Bank of Virginia,.....do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....par		Petersburg,.....do
Hagerstown,.....½a		Norfolk,.....do
Frederick,.....do		Winchester,.....do
Westminster,.....do		Lynchburg,.....do
Farmers' Bank of Mary'd, do		Danville,.....do
Do. payable at Easton,....do		Bank of the Valley,....do
Salisbury,.....5 per ct. dis.		Branch at Romney,....1
Cumberland,.....½a		Do. Charlestown, .do
Millington,.....do		Do. Leesburg,.....do
DISTRICT.		Wheeling Banks,....3¼a
Washington,.....Banks, ½		Ohio Banks, generally 3a4
Georgetown,.....Banks, ½		New Jersey Banks gen. 1½a2
Alexandria,.....Banks, ½		New York City,.....½a
PENNSYLVANIA.		New York State,....2½a3
Philadelphia,.....½a		Massachusetts,....2a2½
Chambersburg,.....½a		Connecticut,....2a2½
Gettysburg,.....do		New Hampshire,....2a2½
Pittsburg,.....2a2½		Maine,.....2a2½
York,.....½a		Rhode Island,....2a2½
Other Pennsylvania Bks. 1½a2		North Carolina,....3a3½
Delaware [under \$5]....3a4		South Carolina,....3a3½
Do. [over \$5]....½a½		Georgia,.....3½a4
Michigan Banks,.....½a		New Orleans,.....6
Canadian do.....5a		

DURHAM & DEVON CATTLE.

PURE animals of the above breeds always for sale by the editor of this paper. June 28

AGRICULTURAL AGENCY in Philadelphia, (No. 5, SOUTH FIFTH-STREET.)

THE Subscriber continues to purchase and sell on commission, Cattle, Sheep, Hogs, Asses, and other domestic animals of choice breeds or qualities, suitable for breeders.

He has now on register for sale, the following animals, viz:

VERY VALUABLE SWINE.

One boar and three sows, of the genuine Norfolk thin rined breed, one year old and upwards.

Also, five sows and four boars of the Philadelphia white breed—some nine and the rest twelve months old. Most of the sows of both kinds are supposed to be in pig.

Price twelve and a half cents per pound.

FIRST RATE JACKS AND JENNETS.

Two Jacks and three Jennets, of the largest size and best blood, of good ages, and remarkable fine breeders.—The Jacks are near 14 hands high, and the Jennets 13 hands and upwards. Two of the Jennets are in foal by an imported Maltese Jack, full 14 hands high. Besides these, which are such animals as can seldom be obtained, the subscriber can at all times procure to order good Jacks and Jennets at fair prices.

CHOICE CATTLE.

Several bulls, cows and heifers, of the Improved Dur-

ham Short Horn breed, with indisputable and excellent pedigrees, are for sale at prices much below those recently obtained in this vicinity for animals in no respect better.

MERINO AND BAKEWELL SHEEP.

The subscriber has made ample arrangements to meet this summer the numerous demands upon him for choice breeders of the above kinds.

All orders sent him early, say previous to the first of August next, will be filled promptly from the best flocks in this region, which are believed to be equal to any in the Union.

SHORT WHEAT.

The subscriber is sole agent for the sale of this year's crop of this most extraordinary variety of Polish wheat, for a description of which see Farmer & Gardener, vol. 2, page 164. Price \$5 a bushel. Orders must be forwarded before the end of July, and the wheat must be paid for on delivery.

All letters not containing orders ought to be post paid and directed to J. IRVIN HITCHCOCK, June 1 ew3t Philadelphia.

FIELD & GARDEN SEEDS, &c.

WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and RARE FIELD seeds, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the *Clairmont Seed Gardens*, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of *Cabbages, Lettuce, Peas, Beans, Cucumbers, &c.*, none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are 250 bushels *Garden Peas* of various sorts.

95 bushels *Dwarf and Pole Beans*.

2000 lbs. *Cabbage Seeds*. About 35 fine sorts, among which are the *Scotch Early York, London Buttersea, Flat Dutch, Globe Savoy, Early Harvest, &c.*

150 lbs. *Cucumber seed*, about 12 sorts, among which are *Keene's Long Green, Long Green Turkey, &c.*

1800 lbs. *Radish seeds*—principally of *Short top Scarlet, Yellow and Red Turnip*.

300 lbs. *Beet and Mangel wurzel seed*.

50 lbs. *Green Curled Borecole*, or *Scotch Kale*, purple curled—blue curled, &c.

35 lbs. *Cauliflower and Brocoli*—best European sorts.

200 lbs. *Carrot seed*—for garden and field.

75 lbs. *Lettuce seed*—the curled *Silecia*, large white or Lazy, brown Dutch and Malta, are best sorts, the latter particularly fine for forcing.

270 lbs. *Onion seed*—several French and American sorts.

Also—*Tart Rhubarb seed, Tomato, Egg plant, Squash, Black and Orange Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive, &c.*

FIELD SEED.

60 bush. *English and Italian Rye grass seed*.

50 do *Green Sward grass*, for yards, &c.

1,200 lbs. *Scarlet Trefoil* or clover, *Trifolium incarnatum*.

800 lbs. *Lucerne* or French clover.

50 bush. *English and Poland oats*.

250 lbs. *Skinless or Huskless oats*—new—great product.

150 bush. best *English and American Early Potatoes*.

100 lbs. *Gama Grass seed*—this grass bears cutting every 15 days, and of course the product is immense.

50 bush. *White and Yellow Field corn*.

ROBERT SINCLAIR, Jr. Seedsman, Light st. near Pratt.

GAMA GRASS ROOTS.

5000 *Gama Grass Roots*, just received. Price \$2 per 100. This

grass still retains it high character for soiling and great products.

Also in store, a few pounds of

GAMA GRASS SEED. Price \$6 per pound or 50c. per ounce.

And will be for sale in a few days,

1300 Double Dahlia FLOWER

ROOTS, embracing all the finest and most rare sorts.—Price 50 a. 75 cents, \$1, 1 50 a \$2 each. A liberal discount will be made when one dozen or more are taken.

R. SINCLAIR, Jr.

Light, near Pratt st. wharf.



THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 10.

BALTIMORE, MD. JULY 5, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JULY 5, 1836.

WORK FOR JULY.

The time was when one might without the hazard of fault, say to his brethren what was to be done on the farm, in the orchard, and in the garden, at each revolving period of the year; but now, forsooth, the elements have so conspired against all that lies in the future, and the seasons are so out of joint, that it is useless to say to-day what should be done to-morrow; for that morrow may render your advice as valueless as would be a record written on the sands of the sea. The interval of a single night is sufficient to render nugatory the best formed plans of operation that it is susceptible for human genius to form. Since the opening of the past spring, such has been the forbidding character of the weather, that it may in truth be said, there has not been three weeks, take it all in all, in which the earth could be stirred advantageously:—indeed, during that whole period there has not been more than the time named, in which positive injury would not have been done, had the earth been disturbed, either with the plough, cultivator, spade or hoe. We have lived out nearly two thirds of the time allotted to man, and we have no recollection of any season that could in the least compare with the present, in all that is inauspicious to the successful labours of the field. Up to the beginning of *April*, and even for many days thereafter, we were visited with a continuation of winter—of winter in its most stern and inhospitable aspect. The earth, which in times of yore were wont to put on its livery of green, remained clad in snow, and although the rains fell plentifully, still they came in an atmosphere so cold that they became congealed as they fell, and even up to the 20th. of *April* we recollect to have seen ice which had been made the previous night. In this metamorphosis of the seasons, *March*, heretofore distinguished for her drying

winds, became a tenant, *per-force*, of winter, and instead of warming into life the buds of spring—instead of opening the earth to the tools of husbandry, was doomed to carry on its face the chilling gloom which distinguishes January in ordinarily severe winters—snow, ice, and frosts, marked its career. *April* so renowned for its genial showers came in with freezing rains, and when these stopped, she assumed a complexion equally disastrous to those engaged in agricultural pursuits:—the five weeks drought, it will be remembered, then commenced its career—this was followed by fifteen days of drenching rain, which after a few days cessation was followed by another rainy spell of nine days duration.

This brief review of the *vegetative* season, will remind our readers how poor and inauspicious have been the opportunities of even the best farmers to turn their agricultural resources—mental and physical, to advantage—it will admonish them too, of the necessity—absolute and imperative necessity—of making an energetic effort to regain the time lost. But let us turn to the productions of the earth. It is now pretty well ascertained, that the Wheat and Rye crops will be greatly deficient. As to the *wheat-crop*, if accounts from the whole range of districts in those states where it forms the chief staple article raised, are to be relied upon,—and we believe they are—less than half average crops will be realized—in many districts, we are credibly informed, the seed sown will not be returned; for the work of destruction which had been left undone by the Hessian Fly, has been completed by the *Scab*, produced by the late rains. And with respect to the *Rye*, it has so turned out, that at the period when it was in bloom, the last northeast storm came just in time to blight the hopes and destroy the prospects of the husbandman; for between the wind and the rain, the heads were deprived of their *farina*, and the consequence is, that the grain is defective to an alarming extent. We fear too, that the early oats have been injured.

The *Corn* in various directions have suffered both from the elements, and those ancient enemies of its family—the grub and wire worms—those dire and insidious foemen, who meanly

strike without sounding the rattle. An esteemed correspondent residing in the fertile county of *Duchess*, New York—a gentleman of wealth and education—one of those individuals that are still left among us to serve as beacon-lights—to show by enviable comparison, the vast difference between the men of the present day and those who marshalled our fathers to battle—in writing to us on other matters, observes:—

“After a detention of 17 days in New York, by incessant rains, which permitted a sight of the sun but once, I reached this on the 11th inst. where the same ill fortune has attended me; for in all the intervening period we have had but one fair day. Our winter grain is much injured by the fly, and our corn crops have been repeatedly cut off by the grub worm. Nor has the season been more favorable to our domestic animals:—from 200 Saxon ewes I have but 60 lambs living, and my poultry have suffered nearly as much.”

We think we hear the reader say this has but little to do with the work of the Farmer for July; but differing widely with him, we hold it especially proper that we should make the proper application, in order that the evil we would avert may be arrested in its course in the onset. The season has been unexampled in its destructive influences upon the productions of human industry and labor; the spread of devastation has alike embraced the yields of the field, and those of domestic animals, and although we do not anticipate any thing like famine, we hold the opinion honestly, that the supplies of the usual bread-stuffs will be greatly diminished, and as we deem with Shakspeare, that “discretion is the better part of valor” and therefore that it is better to provide against a *contemplated* evil than to await its coming, we would respectfully urge upon our agricultural readers the propriety of putting in extra-quantities of all the fall roots and other crops. Now for the work for July.

ON THE FARM.

The Harvest. The farmer should seize the first, and indeed, all successive occasions to cut down and cure his hay, whether it be clover or any other grass, and as from the sad experience of the past, much danger is to be apprehended from recurring northeast storms; every moment should be improved to place it in a situation,

where it cannot be injured by wet; for we learn with regret that a great portion of the clover which was cut immediately prior to the late rains has been destroyed by the long continued wet. And this fact seems to require that we should say something upon the subject of supplying this deficiency. It is not yet too late to sow *Millet* and corn broadcast with a view of furnishing hay, and unless we shall be egregiously disappointed hay will command not only a ready market, but a good price during the next year: as should nothing else do so, *scarcity* will impart to it extraordinary value; for in proportion as the quantity of bread-stuffs produced shall be below the ordinary supply of the country, will the domestic animals be driven upon the grasses for support. This consequence is in perfect conformity with the first law of nature, which teaches mankind to preserve himself first. We know that large supplies of wheat may, and doubtless will be imported from abroad—we are aware that the article has been brought here and sold from time to time, for prices less than those which were brought by the article raised here; but then these facts furnish no security that such as may arrive to supply the *deficiencies* of our own productions may not command such prices as will render its obtainment by the majority of our population, a matter of great and onerous difficulty. These considerations strike us as of pressing moment, and we feel that we should be faithless to our trust did we not submit them to the consideration of our readers. We are not alarmists and should despise ourself could we be induced to lend our paper to any one to get up an excitement; but when from our own experience and observation, we feel a moral certainty that every thing which prudence and foresight can exert is necessary to avert difficulties which we believe to be impending, we are willing to meet the sneers of those who, to gratify some private pique, would involve their fraternity in an odium, as general as indiscriminate and undeserved.

We have in former papers shown, upon grounds satisfactory to ourself, that the present crop of wheat will be greatly under an average one—we have stated as far as our intelligence authorised us, that the rye crop was defective, and, so far as our knowledge went, we have marked the ravages of the grub and wire worms in that of corn. Last year we admonished our friends, of what appeared, under our then advices, to be their interest—we endeavored to impress upon all the necessity of adopting a certain rule of action with regard to providing ample provender for their cattle, and the result proved the propriety of our

admonition. And without claiming any credit to ourself for what we then said, for it required no sagacity to arrive at the conclusions we then did, we would now ask our agricultural brethren to turn a willing ear to what we have to say at the present time.

We have already advised them to sow *millet* and *corn* for hay for provender for their cattle, and we will push our advice a little farther.

Wheat and Rye. These grains as they are respectively reaped must be carefully taken care of; for both straw and grain will prove valuable, and command prices which will satisfy your most sanguine expectations.

Oats. When you have reaped your oats be sure to take care of the straw as well as that from your wheat and rye,—and, indeed, if you act wisely you will stack the larger portion of it away, layer and layer, alternately, with your hay, taking the precaution to sprinkle about a peck of coarse salt on each ton as it is stacked away.

Corn. Your corn must now be kept in a thrifty condition, and the best method of effectuating this is to keep the ground *open* and *clean*. Pass the cultivator through it freely, and have the weeds in the neighborhood of the plants extirpated with a hoe; but do not on any account *hill* your corn; for the experience of the most successful cultivators, go to prove beyond all question, that deep ploughing of corn so as to disturb the young and tender roots and raising a mound around the plants are decidedly injurious.

Potatoes. Put in your potatoes and be sure that you plant a much larger quantity than you have ever done before, because they will assuredly be in demand and bring a good price. The sooner they are put in the better.

Buckwheat. Those who may have failed in their Wheat and Rye crops, will not need to be told that they should put in a larger crop of this grain than usual, as their own interest and good sense will demonstrate its propriety without any remark of ours. But few things can be raised on light lands that will prove more lucrative; nor are there many that are more decidedly useful on a farm. In its green state it affords a most excellent food for milch cattle, as a grain its virtues as food for chickens is too well known to need enforcement by us: and as to its estimable qualities when made into *cakes*, no one whose taste is not vitiated will dispute about them.

Ruta Baga.—The value of this excellent root is becoming better understood, and of course, more highly appreciated, and we are happy to learn that many farmers who have not heretofore raised it, have made up their minds to

commence its culture this year. We are certain that there is no one who will give it a fair trial that will ever neglect its cultivation hereafter; for, besides its immense yield where it grows under proper auspices, the great ease with which it may be kept through the winter, is a trait of character that should recommend it to the favor of all, and especially of those with whom labor is an object, as it will keep well through that season by simply throwing up a furrow on either side of the root, and may be gathered from the fields at any time as they may be wanted. Its culture too is as simple as need be. It requires good ground, which should be well dressed with *calcareous* manures, it being like other turnips liable to be forced into tops where long manure is used. Ashes in the proportion of 100 to 150 bushels to the acre is the proper quantity. With respect to the preparation of the ground all that is necessary to be done is this; let it be ploughed thoroughly, say twice or thrice, and harrowed, and rolled, till the soil is completely pulverized, then run two furrows at intervals of 27 inches; on the top of these apply your manure, say ashes or marl, drill your seed on the top as thin as you can sow them, then cover lightly with a brush or seed harrow. When the plants are up and shall have passed the ravages of the fly, pass the harrow through them cross-wise. In a week from that time run the cultivator through them so as effectually to clear them of weeds, and then either with the hand or hoe thin them out to the space of about fifteen inches apart. If you have not a turnip drill, it will be an easy matter to prepare a most excellent substitute, which is simply a bottle with a cork in it and a quill passed through it to let out the seed. To every half ounce of seed there should be one and a half pint of dry sand or ashes, which should be kept well stirred and mixed up while the sowing is going on. A man who is disposed to do justice by his employer, may sow an acre a day with accuracy. The seed should be soaked for twelve hours before sowing in a solution composed of chamber-ley, sulphur, and saltpetre. This, besides giving to the seed a prompt and vigorous start, assists the plant in its earlier growth, and preserves it from the ravages of the fly.

Turnips. Though it is not time to sow your turnips, it is full time for you to begin your preparations for seeding. Your ground destined for your turnip crop should be ploughed at least three times and as deep as a strong team will enable you to go. The ground should prior to the last ploughing be well manured with a compost of cow-dung and ashes. Each ploughing should

be followed by thorough harrowing, the latest of which should be followed by rolling well with a heavy instrument. If you sow your seed broadcast, an acre of ground will require a pound of seed. If you sow it in drills, half the quantity will be sufficient. Let the seed in either case be soaked in a solution of chamber-ley, sulphur and soot for 12 hours, and be rolled in plaster before sowing.

Having completed our directions about Ruta Baga and turnips, we would fain be indulged with a few advisory remarks.

From the untoward condition of the seasons, we have, as we have before endeavored to impress the idea, reason to apprehend that the grain crops will be deficient, greatly deficient, in quantity and deteriorated in quality; prudence, therefore, would suggest the propriety of each farmer drawing largely upon his fall root crops,—that is, of planting an increased quantity: he who may do so will find that his pecuniary interest will be greatly promoted. Turnips, may be said to be a root which does not possess a large proportion of nutritive matter. True they do not, and yet they are highly relished both by man and beast. As food for sheep nothing is so highly prized in England. In this country, however, the experience there gained has not been properly appreciated, and with few exceptions, turnips form but a small portion of the food which is consumed by sheep, and the consequence is, that the sheep-husbandry, except in a few brilliant instances, has never been conducted upon proper principles in America. There are to be sure some most notable gentlemen, who browse them on the luxury of pine-tops during the winter, and consign them to the dainties of the old fields through the summer: but when we make those honorable exceptions to which we have alluded, there is nothing left to which we might point with feelings of natural pride in the form or shape of sheep husbandry. That our country, in its wide expanse of limit—with its immense and boundless hills and dales and mountains, is peculiarly adapted to the sheep culture, no one who has either the power of discrimination or discernment will attempt to deny,—the fact is, we have every advantage resulting from territory in an eminent degree, and from our illimitable domain, those which appertain to climate are by no means despicable. But what do those advantages avail—what benefit are they to us, if we fail to improve them? None. The herbage of our hills and mountains are, it is true, ample for all the purposes of sheep grazing during spring, summer and fall; but their immense benefits will be measurably lost if we neglect to

improve them by providing appropriate sustenance for that cheerless period of the year, when frost and ice and snow, lock up the generous herbage of the fields. It is in this, Americans have mostly failed. It is in this, that the blessings which the almighty have vouchsafed to us have not been used to the best advantage. Turnips of themselves, it may be alleged, are not nutritive,—true; but with a little admixture of bran or meal of any kind, they form a most excellent and valuable food. As food for *milk cows*, there is nothing which adds more to the *quantity* of the milk, and if the milk be *thin* its quality can be improved by adding flower in some form to it. These considerations impel us to the course we pursue, and make us solicitous to see their culture increased.

Cabbages. Every one knows how easy it is to cultivate these most excellent and truly valuable vegetable—every one relish them with an exquisite appetite—every one acknowledges to their superiority for the purposes of the table and for food of cattle, but still there is a most unaccountable indifference to their cultivation as a full crop, although there are but few of the succulent tribe of vegetables more susceptible of being converted to the better purposes of the husbandman. Upwards of ten thousand will stand on an acre, and that acre will yield on average about 40 tons weight of as good and wholesome provender as ever cattle were fed upon; but then, as we have admitted they do not possess much of that principle which contributes to promote obesity in animals—and yet we maintain that for feeding all cattle that are not intended for the shambles, they are probably better and more healthful than such articles as do encourage the taking on of fat. As to the bad flavor they impart to milk, that is easy of correction, a small lump of saltpetre in a milk pan will be found sufficient to render the milk perfectly sweet.

IN THE ORCHARD.

The *Borer* may, possibly, last month, have prayed upon your young fruit trees, and although it is superfluous now to say what you should do to expel him, it may in future prove of service. The *Borer* is an insect of light brownish color, with two broad white streaks, its length is from one half to seven tenths of an inch, and taken as a whole may be said to be a pretty insect. It buries itself in the earth *around the root*, and we think might be arrested in its adversary course by being *there* attacked. Early in the fall the ground should be laid bare to the roots—indeed the earth should be scraped up around the tree for say two or three feet (according to its size) and

submitted to the action of fire; then in order to make the destruction sure and prevent injury from any of the insects which may have escaped, coal ashes should be put around the roots of the tree, and lightly covered with mould.

As an auxiliary we would sincerely recommend that the *pigs* be turned into the orchard and there be kept till fall. They eat up and destroy all the insects that are deposited in the apples, which from their imperfect condition fall, and thus save much trouble which would otherwise occur but for their destroying the insectiferous enemies of fruit in their infancy. Whatsoever may be said against this practice owing to the injury arising from rooting, we feel assured in our own minds that it is more than counterbalanced by the positive good resulting from the destruction of insects in their embryo state.

Now is the time for budding.

IN THE KITCHEN GARDEN.

Keep your cucumbers, melons, canteloupes, musk-melons, cabbages, lettuce, onions, &c. free of weeds.

Plant cucumbers, melons, beans, &c. for pickling. Transplant your cabbage plants of all sorts. Plant your beans and garden peas.

Carrots and parsnips may now be sown for winter use.

The late cauliflowers should be planted out immediately, as also celery plants.

If you wish early turnips for table use sow as soon as possible, and be sure and select a light sandy soil.

Lettuce of varieties, radishes, spinach, cabbage for greens during autumn, leeks, late beans and peas, may now be sown to advantage, and be sure to let nothing in a time of drought suffer for want of water.

If you have any thing in your garden that you desire to force onward, give it a good dose of soap-suds twice a week for the next month, and you will be sure to see your labor rewarded by a growth of the plant that will more than fulfil your most sanguine expectations. For flowers of all kinds the *soap-suds*, as a manure, is the "sovereignest thing on earth."

Weeds of all descriptions must be eradicated.

Your grape-vines must be tied up and all superfluous branches topped: a good sound watering of soap-suds would now prove especially beneficial to them.

IN THE FLOWER GARDEN.

If you desire your carnations to be deserving of the admiration of your friends—if you desire

that they shall make you feel that your labor in propagating them has not been in vain—such of them as have not yet bloomed, must be tied up and watered regularly. And if you desire to multiply your carnations and pinks, now is the time to do so by layers. The operation is simple. Take small twigs and after selecting the best shoots, trim off the limb, shorten the top branches, peg down the limb about the middle, and cutting it about half through at a joint, cover it up.

Prune, bud, and inoculate, your annual garden roses—and in conclusion let us admonish you freely, of the necessity of watering all of your plants at least three times a week during any drought of a continuation longer than a week.

NEAR COLBYVILLE, Clarke Co. Ky. }
June 16th, 1836. }

To the Editor of the Farmer & Gardener—

Sir: I to-day received the Farmer & Gardener of June 7th, in which there is an extract from a letter written to Major D. Gano, taken from the Farmer & Mechanic. As it regards the purchasers of some of the animals this extract is not correct. I brought with me to Kentucky every female of Powel's stock except one, which was Belina the 3d. There were three of Mr. Barnitz' stock sold, none of which were purchased by us.

Mr. White purchased Mandane and her calf Mandane 3d, for which he paid \$200, and \$600 for the cow.

Mr. Gratz purchased Mandane 2d, Virginia 2d, and Belina 2d, for all which he paid the prices mentioned in the extract.

Mr. Charles S. Brent, near Paris, Bourbon Co. Ky. purchased Florinda 2d, and Ruby 2d, for which he paid the prices mentioned. I purchased Desdemona 2d, Burletta 2d, and Oseola for myself, and paid the prices mentioned for the two first, and for Oseola, a calf 8 days old, of Virginia 3d, I paid \$120. I repurchased from Mr. Purvis, Bertram 4th, for myself, and Virginia 3d for H. Taylor, jr., and Blockley, a bull calf 10 months old, I purchased for Mr. Taylor for \$305. I paid a small advance upon Virginia 3d, and Bertram 4th. I send you the pedigrees of my bulls and one of my cows for publication—it will serve to shew persons not in the habit of writing pedigrees the proper manner of making them out, and I shall feel gratified at persons who understand the matter seeing them, for they cannot be surpassed in England or America.

Pedigree of Dr. Martin's bull Rifleman.

Rifleman, red and white, mostly red, calved 27th March, 1834, bred by H. Clay, esq. was got by Oliver, his dam Nanette, bred by Col. Powel, and by him called Ortella, was got by Malcolm,* (see English herd book, No. 1190)—g. d. bred by Mr. Whitaker, (England); Volante by Frederick (1060) g. g. d. Viola,† bred by Mr. Whitaker, by his Grace (311) gr. gr. gr. d. Venus†, bred by Mr. Charge by Major (397,) gr. gr. gr. d. by Charges Grey Bull (372,) gr. gr. gr. gr. d. by Favorite.

Oliver was bred by Col. Powel and was got by his imported bull Maramon (1223) his dam imported cow Delight, see herd book for 1829.

Pedigree of Dr. Martin's bull Bertram 4th.

Bertram 4th, bred by John Hare Powel, esq. calved 20th March, 1836, red and white, spotted, (sold at Col. Powel's sale to Mr. Purvis and repurchased by S. D. Martin) was got by Bertram 2d, his dam Desdemona 2d, bred by Col. Powel, was got by Bertram, gr. d. Zulinda, bred by Col. Powel by Malcolm (1190), gr. gr. d. Desdemona bred by Mr. Whitaker (England,) by Frederick (1060) gr. gr. gr. d. Delia, bred by Mr. Whitaker, by Cleveland (146,) gr. gr. gr. gr. d. Red Daisy†, bred by Mr. Hustler, by Major (398), gr. gr. gr. gr. d. Strawberry by Windsor (698) gr. gr. gr. gr. d. Old Daisy† by Favorite (252.)

Bertram 2d, bred by Col. Powel, was got by Bertram, dam Belina 2d, bred by Col. Powel, by Malcolm (1190,) gr. d. Belina†, bred by Mr. Whitaker (England) by Barmpton (54) gr. gr. d. by a son of Wellington (680) out of Charlotte, gr. gr. gr. d. by Laird (1158,) &c.

Pedigree of Dr. Martin's bull Oseola.

Oseola, red, a little white, calved 10th April, 1836, bred by Col. Powel, was got by Bertram 2d, d. Virginia 3d, bred by Col. Powel by Bertram, gr. d. Lucilla 2d, bred by Col. Powel by Memnon (1223,) gr. gr. d. Virginia, bred by Mr. Law, by General (272), gr. gr. gr. d. Rosemary, bred by J. C. Curwen, esq. by Flash (262,) gr. gr. gr. gr. d. Red Rose, by Petrarch (488), gr. gr. gr. gr. d. by Alexander (20,) gr. gr. gr. gr. gr. d. by Traveller (655,) gr. gr. gr. gr. gr. gr. d. by son of Belingbroke (86.)

The pedigree of Bertram is given in the following certificate of Mr. Coates, the keeper of the English herd book.

"I do hereby certify, that the bull Bertram, bred by J. Whitaker, esq. and bought by me for John Hare Powel, esq. was got by Frederick, d. Red Daisy† by Major, g. d. Strawberry, by Windsor, gr. gr. d. Old Daisy† by Favorite, gr. gr. d. by Punch, gr. gr. gr. d. by Hubback. This bull combines more perfection in form, handling, and dairy qualities, than any bull I ever saw. I consider him very much superior to Old Comet, bred in my neighborhood, and sold at public auction for one thousand guineas. Carlton, near Pontrefact, June 2d, 1831.

Signed,

GEORGE COATES.

For the pedigree of Dr. Martin's cow Desdemona 2d, see pedigree of Bertram, hersire, given above, and her pedigree given in the pedigree of Bertram 4th.

For the pedigree of H. Taylor's cow Virginia 3d, see pedigree of Oseola. For the pedigree of H. Taylor's bull Blockley, see pedigree of Bertram 2d, his sire, and Virginia 3d, a full sister to his dam Virginia 3d, so that by putting Virginia the 2d in the place of Virginia 3d in the pedigree of Oseola, you have the pedigree of Blockley.

Yours, respectfully,

SAML. D. MARTIN.

Mr. E. P. Roberts.

* The figures denote the number by which each bull is distinguished in the English herd book. Mr. Powel says Malcolm was the best bull he ever owned except Bertram.

† Viola took the premium at the Otley show, England. Venus the dam of Viola, when sixteen years old, gave 26 quarts of milk a day; Red

Daisy and Old Daisy each gave 32 quarts of milk a day; Belina made 20 $\frac{1}{2}$ lbs. of butter a week, and her cream could be turned into butter in two minutes in a cup stirred with a teaspoon; see report of Agricultural Society of Pennsylvania of 1827; for quantity of milk given, see the Revd. Henry Berry's pamphlet.

ADDRESS

Of Thomas J. Randolph, delivered before the Agricultural society of Albemarle, at their Annual Meeting, 1835.

In obedience to a resolution of this Society, appointing essayists at their meeting in October 1833, I have the honor to submit the following communication upon the culture of Wheat.

Although deep culture is important, if not indispensable, with all plants to permit their roots to penetrate the soil freely in search of food and moisture, and to allow the water in heavy rains to subside without abrading and gulleying undulating lands, or drowning those that are level; it may be doubted whether it be proper to effect this by frequent ploughing, and intermixing too perfectly the surface with the inferior soil or clay. Nature in all her operations manures on the surface, and forms there the soil which is best adapted to the growth of vegetation, and if this is not inverted by the plough, she reinstates in its original position, as soon as the land is permitted to remain undisturbed a sufficient length of time, by a process more rapid in warm weather, and on rich soil, where there is much vegetable matter, and slower where the land is less fertile and the weather colder. This is strikingly exemplified by a fact well known to most farmers, viz: That when good land, (particularly clover land) with a distinctly marked surface of dark soil is fallowed for wheat, sown with the harrow upon one ploughing and permitted to be a year or two in clover, after the crop of wheat, the dark soil is found upon the surface occupying the position in which the clay was left by the previous ploughing, and the clay that which was occupied by the inverted soil; a change of clay into soil, and soil into clay. A question naturally arises, what good results from forcing the land to this double process? I should think none. Economy of labor, however, requires this to be done as an expeditious mode of disposing of the vegetable matter, by burying it with the plough; but with one ploughing the necessity ceases for that crop.

I have said that this process was more rapid on rich soils where there was much vegetable matter, and in warm weather, than on poorer soils, and in cold weather. I suppose it accomplished by the gases evolved in the decomposition of the vegetable matter turned under by the plough. If the weather is warm, and the vegetation green, succulent and abundant, the decomposition is rapid and the quantity of gas discharged is great. Of these the carbonic is deemed the great stimulant of vegetable life, and being heavier than atmospheric air, but lighter than the soil, it rises to the surface, insinuating itself into the interstices of the clay brought up by the plough, saturates it, and accomplishes the first process of its conversion into soil. Hence the

cause of a well known fact, that fallows made in June, July and early in August, become many shades darker on the surface, although exposed to the scorching rays of a summer's sun, and prior to a renewed growth of vegetation upon them. Whilst it less frequently occurs on those made in September; and on those in October, rarely, until the next year; vegetation being more matured, drier, less succulent, the days shorter, the nights longer and cooler, and every circumstance less favourable to a rapid decomposition in these months. A similar process has taken place on the corn land after the cultivation of the corn has ceased, and before seed time. The fertile appearance of these lands at that time is familiar to every one.* This recently formed and forming soil my experience has convinced me is a proper surface for wheat; a second ploughing on fallow intermixes it with the inferior soil, and the use of the large plough on corn land produces the same effect. I formerly believed two ploughings necessary as a perfect preparation for a wheat crop. When pressed for time, I used heavy harrows as a substitute for a second ploughing, often when there was a strong growth of summer grass; such portions have always produced more grain, perhaps less straw than that which had been twice ploughed. I once fallowed 20 or 30 acres of land in February, ploughed it with a two horse plough, whenever the grass and weeds grew in summer; it was ploughed in all five times before seeding on the

first of October, and although it suffered from no disaster, it produced a wretched crop for the year and the land. I have occasionally coultured and harrowed small pieces of land and prepared them without turning the surface with a plough, and have uniformly found the straw brighter and the wheat more to perfection than on the adjacent land which had been ploughed and the surface inverted, although both were very fine.

In 1822, on four plantations then under my direction, the corn crop being very forward, about half of it was removed in September, and the land ploughed with three horse ploughs, the preparation appeared to be perfect, the earth light and thoroughly pulverized, and the grass entirely rotted; the land was harrowed and then sown and the seed harrowed in. In the mean time the grass had continued to grow on the portions of the fields not ploughed; when the seeding of the first was completed, the rest was sown among a heavy crop of grass with scoops, merely scarifying the surface, for nothing could be done: yet the preparation by which the soil had been inverted by the large plough, produced a much inferior crop to the other. The result was the same at each plantation. In putting in wheat on corn land with small ploughs, I have often laid them aside for the large plough, on account of the heavy coat of grass on rich spots, old tobacco lots, &c., resuming the small plough again on passing them. The product and appearance of those spots of better land thus prepared, were always inferior to that of inferior land ploughed with the small plough. I could add many instances of a similar kind with similar results.

From my observation and experience I deduce the following conclusions.

1. That to insure the best crop, lands should be fallowed early, viz: before the middle of August.
2. That the surface acted upon by this process of a reformation of soil is the proper one into which the grain should be put.
3. That a second ploughing with a large plough in fallow, and its use in preparing corn land for wheat, is disadvantageous. Nature in both instances has prepared a better surface than can be prepared by art.
4. That the mixing the newly formed soil, fully saturated with carbonic gas, with the inferior soil, prevents a quick and vigorous growth of wheat, and as early and as perfect maturity.

If the fallows have been ploughed early, and a crop of summer grass has grown upon them, they may be stirred with the small plough or coultter if hard, or harrowed if mellow, so as to pulverize and smooth the surface, without regarding the grass and the wheat sown among it: the frost kills the grass and it acts as a beneficial covering to the wheat.* When the fallows are

* Blue grass fallows will probably require a second ploughing to destroy it. The first ploughing on the grass should always be made before the grass seeds; all plants are easily destroyed if disturbed about the time of their seeding. If fallowing is postponed until July or August, the crop becomes very precarious; it will most fre-

prepared and the corn crop sufficiently forward to take off in September, the corn land may be ploughed with the small plough, and harrowed ready for seeding, thus enable the farmer to put all his teams to the harrow and sow a large crop in a few days. Selecting his own time for seeding, he may hope to escape the dangers of early and late fly, and do much to insure a fair crop for his land. In anticipation of this, it is desirable to plant a corn which will mature itself somewhat earlier than the kinds now cultivated. We have a corn in this neighborhood well adapted to this purpose, which yields well. If the corn is too late, commence removing in time to prepare your land in September, the baulks can be broken before the corn is taken off: you will then, upon removing the corn in the latter end of the month, have only to plough the list, and harrow the land, to be ready for seeding. If a proper seed bed is prepared, one harrowing is sufficient to cover the grain.† In the October of 1833, I had sown in this manner, 300 acres in 4 days and a half, employing 8 harrows, with two horses each, and two with a yoke of oxen each: in all, ten horses. The teams were never hurried until the last day, a few hours, when there was an appearance of rain. This present month, (October 1835,) six days have been taken, to put in 340 acres of land, 80 of which were rough with stones and stumps. The teams employed the same.

When tobacco is cultivated as a mixed crop, the early corn ought to be planted; it does not attain such size of stalk and can be removed with less labor, severing it at the ground and stacking it on the field without pulling the fodder, or cutting the tops. Hay enough should be made to serve the farm, and the time given to tobacco and other operations, which is usually spent unprofitably about the fodder. I am satisfied, that corn is less injured to be cut up with the fodder and top on, than to take them off and leave it standing in the field. In the first case it cures, in the latter it withers. I have heard a judicious farmer estimate as fair work, 2000 lbs. per day the average of hands employed in gathering and securing fodder; of hay 1000 lbs; the

quently happen that after much time and labour has been spent, it will be injured or destroyed by the turf. If such lands cannot be ploughed in May or early in June, this grass may be destroyed or crippled by hard grazing from Spring until June or July: it being grass without after swarth or ground leaf, each spire is a seed-bearing spire, and the grazing necessarily confined to these, and if it is not permitted to seed, it perishes.—It is a grass never found upon commons or on road sides, where it is perpetually grazed. It will probably be found that grasses bear grazing in proportion to the quantity of ground leaf they put forth.

† Some persons object to the harrow as not covering the grain deep enough. If a grain of wheat is buried over 2 or 3 inches deep, it forms a joint near the surface, from whence (if the plant is sown early and the fall growth vigorous) it puts forth roots, and the spire and roots below that joint perish that fall, and the plant thrives by these surface roots.

* That the process must be effected by the action of the gases is proven from the uniform fertility of grave yards; here the bodies do not come in contact with the surface: it must be by the generated gas forcing its way through the fresh dug earth. Would a culture of several feet make poor land rich? I think not. Manures never sink. Upon light sandy soils with too small a portion of clay to imbibe and retain the gases, they penetrate easily and escape rapidly; such require frequent applications of manure, but in smaller quantities: it acts promptly, but evaporates with the culture of a crop. Stiff clays, deficient in aperient particles, are not sufficiently permeable to the gas, the particles become compact together by rain so as to expel it before it can be sufficiently imbibed; they close so completely over manures as to exclude the air, and arrest their decomposition upon such soils. Manure ploughed under may be found two or three years after retaining its original appearance, but its fertilizing principle gone: for such, straw, half rotted manures that act as a temporary aperient, are best. Sand or some substitute for it is necessary for its mechanical effects, as an aperient to every good soil, its excess makes a quick soil, soon exhausted, its deficiency a stiff slow soil. In addition, there are no doubt chemical combinations in all soils, rendering some capable of fertility, others not. The sterility of any soil may be temporarily overcome by the application of animal or vegetable manures, but query? Will not an originally poor soil, if made ever so rich by manures, left to itself without cultivation, lapse into its original sterility; and will not one originally fertile when exhausted, become rich if left undisturbed long enough?

use of the revolving horse rake on smooth lands, would much increase the latter average. I am aware that in recommending the stacking of corn on the field, I am running counter to the opinions of some of our best farmers. I would not recommend it where the corn could be housed, but where it can not be done from attention to the tobacco crop, lateness of ripening or deficiency of labor, I deem it better to lose the ground covered by the stacks than the greater loss from late seeding. The injury of running your teams and carts over the fields in dry weather after the wheat is sown and up, in removing the corn, I estimate very lightly.

NOTES ON FARMING.

Lime.—By the fermentation it induces, the earth is opened and divided; and, by its absorbent and alkaline qualities, it unites the oily watery parts of the soil. It seems also to possess the property of collecting the acid of the air, and of forming with it a combination of great use in vegetation. Thus robbing the soil of its oily particles, it will in time render it barren, unless supported with manures of an oily nature.—*Geo. Ess. p. 29.* Its great use upon a sandy soil is, by mechanically binding the loose particles, and thereby preventing the liquid parts of the manure from escaping out of the reach of the radical fibres of the plants.—*Ib. 30.* Upon clay the effect is different: for by means of the gentle fermentation it induces, the unsubdued soil is opened and divided; the manures laid on regularly, so as to come in contact with every part of it, and the fibres of the plants have full liberty to spread themselves.—*Ib. 28.* Although we cannot describe all the soils that lime operates beneficially upon, we can specify some upon which it does operate well. 1. Upon all soils, being drained, which contain an abundance of ligneous or woody matter as reclaimed swamps, and upon those containing insoluble vegetable matter, i. e. matters which will not dissolve in water, by reason of their chemical combination, quick lime will be beneficial by rendering the inert matter soluble, and fitting it to become the food of plants. 2. Upon all soils deficient in calcareous, or carbonate of lime, be they even stiff clays or porous sands, mild lime, or lime, that has become saturated with carbonic acid, is unquestionably beneficial. It corrects the mechanical defects of clays and sands—renders manures more beneficial, and the drafts less prejudicial. Quick lime soon becomes mild lime after it is commingled with the soil. As a general rule, carbonate of lime is beneficial upon all soils belonging to the primitive formation, and to transition formations that are deficient in this earth. In the use of this mineral, we see the importance of knowing the constituents of soils.

Our friends at West Chester are, as usual, striving to be useful, and true to their character, "Whatsoever their hands find to do, they do with all their might." The Republican of that village thus notices one branch of business—it is new amusement:

"The Odd Fellows' Hall is emphatically converted in to the 'Hall of Industry.' It is now

the *sanctum sanctorum* of the army of silk worms purchased by the enterprising silk company of this county. These worms have, for two or three weeks past, been under the supervision of Master William Jeffries, who has supplied them regularly with food, and proved himself an excellent purveyor."—*U. S. Gaz.*

JAMES MADISON.

Since our last paper went to press intelligence has arrived of the death of this illustrious and good man—illustrious from the boldness of the conceptions and beneficial influence upon the liberties of man, of his political principles; and good, because, in graduating his actions he studiously avoided all selfish considerations and endeavored to fulfil the dictates of his conscience. Making these his rules it is not a matter of surprise that he succeeded in making himself the object of universal admiration, praise and love. Of the greatness of James Madison no one acquainted with the history of the country ever doubted—of his goodness, all whose opinions are worthy of being appreciated concur in awarding to him the fullest meed of praise. The following brief notice of his death is all that we have seen up to the time of penning this paragraph, and in copying it we must be indulged with the remark of a holy one of old:

"A great man hath this day fallen in Israel."

[From the Baltimore Patriot.]

DEATH OF JAMES MADISON.

The venerable JAMES MADISON is no more. The distinguished statesman of other days, the eminent public benefactor, the amiable and cherished individual, without an unkind thought towards living man, and without an enemy among the good, has taken his final departure from among men. After lingering, as a fond parent among his children, until the last of his great compeers had left this nether sphere, the able, the profound, the accomplished, the beloved MADISON, has at length, and in the fullness of time, closed his eyes upon the things of earth, and gone to join the band of worthies in another and better world. He breathed his last, at his seat in Orange County, Virginia, on the morning of Tuesday the 28th instant.

The information of this melancholy but not unexpected event reaches us through a hasty note from our friend W. M. BLACKFORD, Esq. editor of the Political Arena, at Fredericksburg, who writes under date of yesterday. The note announces the simple fact of the death of this great and good man, without adding particulars, or entering into those details in connection with the event, which would be heard with so much interest by every individual throughout this union. For these we must await the arrival of another mail. And leaving to other and abler hands the duty of sketching his exalted public character, and of spreading forth the canvass of his "living actions" as an example to the age, we confine ourselves at this time to the simple announcement that JAS. MADISON hath departed this life

and that his name too, high on the list of American worthies; has at length been added to that of the ILLUSTRIOUS DEAD. "That sun has set—O rise some other such!"

The subjoined proceedings of Congress upon the melancholy occasion, will be found full of interest.

Thursday, June 30.—On the Speaker's resuming the chair, at 4 o'clock, he announced the following Message from the President of the United States:

WASHINGTON, June 30, 1836.

To the Senate and House of Representatives.

It becomes my painful duty to announce to you the melancholy intelligence of the death of James Madison, ex-President of the United States. He departed this life at half past 6 o'clock, on the morning of the 28th inst., full of years and honor.

I hasten this communication, in order that Congress may adopt such measures as may be proper to testify their sense of the respect which is due to the memory of one whose life has contributed so essentially to the happiness and glory of his country, and to the good of mankind.

ANDREW JACKSON.

The Message having been read,

Mr. Patton, of Virginia, said that the particular relation in which he stood, as his immediate representative and personal friend, towards the great public benefactor whose decease, "full of years and of honors," had just been announced by the President of the United States, had induced the Virginia delegation to devolve upon him the mournful duty of proposing for the adoption of the House the resolution he was about to offer, for the purpose of determining upon the course to be pursued for giving expression to the national sensibility to the great bereavement we had suffered.

I do not, however, Mr. Speaker, find it to be a suitable occasion in which to enjoy or indulge in any studied phrase of panegyric upon the public or private virtues of the venerable man whose loss we deplore.

It is true, sir, that early imbued with the sincerest veneration for the character of Mr. Madison with the profoundest admiration of his talents, and the warmest gratitude for his eminent and varied public services, there is no language that I could employ which would exaggerate the deep emotion with which I have been impressed by the melancholy intelligence of his death. And I am sure it would be equally impossible for me to speak of him in any terms that would depict an individual pre-eminent in all the virtues of social and private life, or one that combined the merits of a patriot, statesman, and sage, that would not find a ready response in the minds and hearts of all who hear me. But it is not a feeble effort of this kind, such as I could make, nor even by the highest effort of human eloquence, the lofty aspiration of poetry, "the storied urn or animated bust," that can rear an appropriate monument to the memory of Madison, or erect a suitable monument to his fame.

His appropriate and enduring eulogium, is to be found in those pages of his country's history, which were identified with her honor and glory.

It is engraven upon every pillar of that splendid fabric of constitutional liberty, under which we live. It is identified with the existence of that glorious union of confederated States which he contributed so essentially to form, and the maintenance and preservation of which, with all its numerous blessings, were the constant objects of his care during his long, laborious and useful public life, and of his most earnest and anxious solicitude in the shades of retirement.

And, Mr. Speaker, another and not less decisive and more effecting evidence of his merit and title to public gratitude, will be found in the deep grief with which his loss will be deplored by every man in the nation as a great national calamity. I offer the resolution which I now send to the chair.

Resolved, That a committee be appointed on the part of this House, to join such Committee as may be appointed on the part of the Senate, to consider and report by what token of respect and affection it may be proper for the Congress of the United States to express the deep sensibility of the nation to the event of the decease of Mr. Madison, just announced by the President of the U. States to this House.

The resolution having been read—

Mr. Adams rose, and addressed the Speaker.—By the general sense of the House, (said he) it is with perfect propriety that the delegation from the Commonwealth of Virginia have taken the lead in the melancholy duty of proposing the measures suitable to be adopted as testimonials of the veneration due from the Legislature of the Union to the memory of the departed patriot and sage, the native of their soil, and the citizen of their community.

It is not without some hesitation and diffidence, that I have risen to offer in my own behalf, and that of my colleagues upon this floor and of our common constituents, to join our voice, at once of mourning and of exultation, at the event announced to both houses of Congress by the message of the President of the United States—of mourning, of the bereavement which has befallen our common country by the decease of one of her most illustrious sons—of exultation of the spectacle afforded to the observation of the civilized world, and for the emulation of aftertimes, by the close of a life of usefulness and of glory, after forty years of service in trusts of the highest dignity and splendor that a confiding country could bestow, succeeded by twenty years of retirement and private life, not inferior, in the estimation of the virtuous and wise, to the honors of the highest station that ambition can ever attain.

Of the public life of James Madison what could I say that is not deeply impressed upon the memory, and upon the heart of every one within the sound of my voice? Of his private life, what but must meet an echoing shout of applause from every voice within this Hall? Is it not in a pre-eminent degree by emanations from his mind that we are assembled here as the Representatives of the People and States of this Union? Is it not transcendentally by his exertions that we all address each other here by the endearing appellation of countrymen and fellow-citizens? Of that band of benefactors of the hu-

man race, the founders of the Constitution of the United States, James Madison is the last who has gone to his reward. Their glorious work has survived them all. They have transmitted the precious bond of union to us, now entirely a succeeding generation to them. May it never cease to be a voice of admonition to us of our duty to transmit the inheritance unimpaired to our children of the rising age.

Of the personal relations with this great man, which gave rise to the long career of public service, in which twenty years of my own life has been engaged, it becomes me not to speak. The fullness of the heart must be silent, even to the suppression of the overflowings of gratitude and affection.

A message was received from the Senate, announcing the adoption of the following resolution by that body:

IN SENATE OF THE UNITED STATES, June 30, 1836.

Resolved, That a committee be appointed on the part of the Senate to join such committee as may be appointed on the part of the House, to consider and report by what token of respect and affection it may be proper for the Congress of the United States to express the deep sensibility of the nation to the event of the decease of Mr. Madison, just announced by the President of the United States.

Ordered, That Mr. Rives, Mr. Clay, Mr. Calhoun, Mr. Grundy, Mr. Buchanan, Mr. Leigh, and Mr. Tallmadge be the committee.

Attest: WALTER LOWRIE, Sec'y.

The House concurred in the resolution, and, according to a previous order of the House, the committee was ordered to consist of one from each State in the Union; and the following gentlemen were appointed:

Mr. Patton, of Virginia,
Mr. Mason, of Maine,
Mr. Cushman, of New Hampshire,
Mr. Adams, of Massachusetts,
Mr. Toucey, of Connecticut,
Mr. Pearce, of Rhode Island,
Mr. Allen, of Vermont,
Mr. Ward, of New York,
Mr. Parker, of New Jersey,
Mr. Anthony, of Pennsylvania,
Mr. Milligan, of Delaware,
Mr. Washington, of Maryland,
Mr. Deberry, of North Carolina,
Mr. Griffin, of South Carolina,
Mr. Coffee, of Georgia,
Mr. Johnson, of Kentucky,
Mr. Dunlap, of Tennessee,
Mr. McLene, of Ohio,
Mr. Ripley, of Louisiana,
Mr. Carr, of Indiana,
Mr. Clairborne, of Mississippi,
Mr. Reynolds, of Illinois,
Mr. Lyon, of Alabama,
Mr. Harrison, of Missouri.

PRACTICAL HINTS TO FARMERS.

The following items relating to rural economy are derived from conversations which we have from time to time entered into, with sundry practical farmers.

Tar for Sheep.—A gentleman who keeps a large flock of sheep says that during the season of grazing he gives his sheep tar, at the rate of a gill a day to every twenty sheep. He puts the tar in troughs, sprinkles a little fine salt over it, and the sheep consume it with eagerness. This preserves them from worms in the head, promotes their general health, and is thought to be a specific against the rot.

Bots in Horses.—A traveller informs us that the stage drivers on the routes leading from Albany to the western parts of the State of New-York, in giving water to their horses on the road mix a little wood ashes with their drink, which they say, effectually preserves them against the bots.

Thistles.—It is said that if thistles are cut after they are in full bloom an inch or two above the ground they will be more easily subdued than those cut at the same time with the hoe below the surface. In the former case the remaining stub of the thistle gets full of water, which resting on the crown of the plant injures it so far as to occasion a few feeble shoots only to rise, whilst in the latter strong and luxuriant stems were produced.—*New England Farmer*.

FAILURE OF THE CROPS.

Complaints of disaster to the crops have been so common for many years past, that the public are always disposed to receive unfavorable reports on the subject with some degree of allowance: An actual inspection of several of the grain-growing counties, however, has demonstrated to our satisfaction that there is no mistake at this time. It is difficult to form a correct idea of the gloomy reality. Many of the fields which had a prosperous appearance last fall, and even in the early part of the spring, will not produce a return of the seed sown upon them, and some are as barren as the streets in this city. The destruction in some cases is total and complete; and we think we may safely say that not one field in twenty will be worth the labor of the harvest.

The failure embraces the valley counties as far up as Augusta, and even in the latter the crop will not be much over half an average one. In a portion of Maryland, which came under our notice, the prospect is equally discouraging, and accounts from Pennsylvania (already known to our readers) do not afford much consolation. Those who rely principally upon the great staple of the country, will feel the failure most seriously.—*Richmond Com.*, June 21.

CONTENTS OF THIS NUMBER.

Work for July—Pedigrees of a part of Dr. Martin's Durham stock—Address of the honorable Thomas J. Randolph before the Agricultural Society of Albemarle, Virginia—properties of Lime—Silk Culture in Westchester, Pa.—notice of the death of James Madison, together with the proceedings of Congress—practical hints for farmers—failure of the crops—prices current and advertisements.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	7 50	8 75
CORN, yellow,.....	bushel.	80	81
White,.....	"	75	—
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18½	20
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	—	1 50
FLOUR&MEAL—Best wh. wh't fam.	barrel.	8 00	8 50
Do. do. baker's,.....	"	7 50	8 00
Do. do. Superfine,.....	"	7 00	7 25
SuperHow. st. in good de'd	"	6 87	7 00
" wagon price,.....	"	6 75	6 87
City Mills, extra,.....	"	—	7 25
Do.	"	—	6 87
Susquehanna,.....	"	6 87	—
Rye,.....	"	4 75	4 87
Kiln-dried Meal, in hhd.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
GRASS SEEDS, red Clover,.....	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 75	3 00
Orchard,.....	"	none	2 50a3
Tall meadow Oat,.....	"	2 25	2 50
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"	—	—
OATS,.....	"	42	46
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	—	3 25
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	—	95
Susquehanna,.....	"	—	95
TOBACCO, crop, common,.....	100 lbs	4 75	5 00
" brown and red,.....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wraperry, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	4 25	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	1 60
Red,.....	"	1 50	1 55
WHISKEY, 1st pf. in bbls.....	gallon.	34	35
" in hhd.....	"	33	33½
" wagon price,.....	"	31	—
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 25	—
To Wheeling,.....	"	1 50	—
WOOL, Prime & Saxon Fleeces,...	pound.	55 to 68	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.....	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,.....	"	38 40	22 24

DURHAM & DEVON CATTLE.

PRE animals of the above breeds always for sale by
h editor of this paper. June 28

POTATO OATS.

100 Bushels seed potato oats—a choice article—
for sale by JAMES MOORE,
Light, near Pratt st.
Mh 22 at the Maryland Agricultural Repository

BALTIMORE PROVISION MARKET.

	PER.	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	16	17
Shoulders,..... do.....	"	12	—
Middlings,..... do.....	"	13½	—
Assorted, country,.....	"	10	11
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	20
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	50 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 75	1 81
CHOP RYE,.....	"	1 75	1 81
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,.....	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 37	—
Mackerel, No. 1, \$8.—No. 3.....	"	—	5 75
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virginia,.....
Other Branches,.....	do	Bank of Virginia,.....
Branch at Fredericksburg,.....	do	Branch at Fredericksburg,.....
MARYLAND.		Petersburg,.....
Banks in Baltimore,.....	par	Norfolk,.....
Hagerstown,.....	½a	Winchester,.....
Frederick,.....	do	Lynchburg,.....
Westminster,.....	do	Danville,.....
Farmers' Bank of Mary'd,.....	do	Bank of the Valley,.....
Do. payable at Easton,.....	do	Branch at Romney,.....
Salisbury,.....	5 per ct. dis.	Do. Charlestown,.....
Cumberland,.....	½a	Do. Leesburg,.....
Millington,.....	½a	Wheeling Banks,.....
DISTRICT.		Ohio Banks, generally,.....
Washington,.....	½a	New Jersey Banks gen. 1½a2
Georgetown,.....	½a	New York City,.....
Alexandria,.....	½a	New York State,.....
PENNSYLVANIA.		Massachusetts,.....
Philadelphia,.....	½a	Connecticut,.....
Chambersburg,.....	½a	New Hampshire,.....
Gettysburg,.....	do	Maine,.....
Pittsburg,.....	2a2½	Rhode Island,.....
York,.....	½a2	North Carolina,.....
Other Pennsylvania Bks. 1½a2		South Carolina,.....
Delaware [under \$5],.....	3a4	Georgia,.....
Do. [over \$5],.....	½a3	New Orleans,.....
Michigan Banks,.....	5a	
Canadian do.....	5a	

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

July 5 2t

Light near Pratt st. wharf.

LARGE WHITE FLAT TURNIP SEED, &c.
Growth 1836.

The subscriber has now the pleasure to offer for sale a superior lot of WHITE FLAT TURNIP seed, raised the present season by Robert Sinclair, Senr. from selected roots of the finest quality; the continued care for the last ten years, to preserve this article genuine, causes it to continue unrivalled.

It is recommended "to sow the seed 10th a 25th Au-

gust, on new cleared land, or well tilled clay or loam. Quantity of seed required to crop one acre of ground, 4 to 1½ lb.; if the latter quantity is sown it will be necessary to cross the plants with a harrow, after which follow with hoes, leaving the plants about 12 inches apart." For further information relative to preparations for seed, cultivation, &c., see R. Sinclair's remarks on Turnip crops in the next preceding number of the "Farmer and Gardener." Price \$1 per lb. and a liberal discount to those who purchase to sell again.

Also, early round Dutch Turnip Seed, Norfolk or large white, white Tankard, yellow Bullock, Ruta Baga, and Dale's new Hybrid Turnip Seeds, at 75 cents per lb.

PICKLING CUCUMBER SEED of the best sorts, Endive, Brussels' Sprouts; Lettuce of various sorts, among which are brown Dutch; large white Cabbage and Cilicia—the three most esteemed sorts, YELLOW TURNIP, RADISH, and BLUE CURLED GREENS, or DELAWARE KALE, a superior sort, of fall sowing—both of the latter articles were raised by Robert Sinclair, Senr., with his usual care, from plants selected expressly for the purpose.

July 5.

Light near Pratt street wharf.

FIELD & GARDEN SEEDS, &c.

WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and RARE FIELD seeds, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the Clairmont Seed Gardens, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of Cabbages, Lettuce, Peas, Beans, Cucumbers, &c., none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are 250 bushels Garden Peas of various sorts.

95 bushels Dwarf and Pole Beans.

2000 lbs. Cabbage Seeds. About 35 fine sorts, among which are the Scotch Early York, London Battersea, Flat Dutch, Globe Savoy, Early Harvest, &c.

150 lbs. Cucumber seed, about 12 sorts, among which are Keene's Long Green, Long Green Turkey, &c.

1800 lbs. Radish seeds—principally of Short top Scarlet, Yellow and Red Turnip.

300 lbs. Beet and Mangel wurzel seed.

50 lbs. Green Curled Broccoli, or Scotch Kale, purple curled—blue curled, &c.

35 lbs. Cauliflower and Brocoli—best European sorts.

200 lbs. Carrot seed—for garden and field.

75 lbs. Lettuce seed—the curled Silecia, large white or Lazy, brown Dutch and Malta, are best sorts, the latter particularly fine for forcing.

270 lbs. Onion seed—several French and American sorts.

Also—Tart Rhubarb seed, Tomato, Egg plant, Squash, Black and Orange Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive, &c.

FIELD SEED.

60 bush. English and Italian Rye grass seed.

50 do Green Sward grass, for yards, &c.

1,200 lbs. Scarlet Trefoil or clover, Trifolium Incarnatum.

800 lbs. Lucerne or French clover.

50 bush. English and Poland oats.

250 lbs. Skinless or Huskless oats—new—great product.

150 bush. best English and American Early Potatoes.

100 lbs. Gama Grass seed—this grass bears cutting every 15 days, and of course the product is immense.

50 bush. White and Yellow Field corn.

ROBERT SINCLAIR, Jr. Seedsman,
Light at near Pratt.

GAMA GRASS ROOTS.

5000 Gama Grass Roots, just received. Price \$2 per 100. This

grass still retains its high character for soiling and great products.

Also in store, a few pounds of

GAMA GRASS SEED. Price

\$6 per pound or 50c. per ounce.

And will be for sale in a few days,

1300 Double Dahlia FLOWER

ROOTS, embracing all the finest and most rare sorts.—

Price 50 a 75 cents, \$1, 1 50 a \$2 each. A liberal discount will be made when one dozen or more are taken.

R. SINCLAIR, Jr.

Light, near Pratt street wharf.



THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

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BALTIMORE, MD. JULY 12, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the *west side of Light, near Pratt street*, at FIVE DOLLARS *per annum*, payable in *advance*. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JULY 12, 1836.

SALE OF IMPORTED STOCK.

The Rev. J. A. Robertson, of whose importation of improved short-horn Durhams and Ayrshire cattle we spoke last year, sold a few days since to the Hon. Harmar Denny, of Alleghany county, Pa. his splendid young Bull Buckingham, 2 years and 3 months old, a cow rising 3 years old called Cowslip, and an Ayrshire cow between 6 and 7 years old, named Virginia, in honor of the old dominion, the state which Mr. Robertson has adopted as the future home of himself and family. The two first of these animals, are of the very purest blood of the improved short horns, that could be obtained in England. They were selected by Mr. Robertson in person, who besides being an excellent judge himself, enjoyed opportunities and facilities which fall to the lot of few gentlemen. Allied to some of the first families in the empire, and being then on the eve of departing for this country with a view of purchasing an estate for a permanent residence, all of his own, as well as the friends of his family, generously tendered their offices to aid him in his selections of stock, so that his own judgment, which is both shrewd and ripe, was backed by those of his numerous acquaintances. The animals thus auspiciously selected were purchased without regard to price; *superior excellence in points, handling, and pedigree*, being the only objects thought of. He imported them in November last into Philadelphia, and brought them thence to this port by water, whence they were sent to an estate he very soon afterwards bought in Middlesex co., Va. They were bought for his own private use, but having, unfortunately for the health and safety of those noble animals, located himself in the tide-water district of Virginia, a region so baleful to the health of horned cattle brought from a distance, as almost to ren-

der the death of all introduced therein as certain. Few, indeed, survive the first summer. Thus situated Mr. Robertson found himself compelled, in justice to his own interest, and in humanity to his animals, to dispose of them, in order that they might be saved to the country. This change of his original intention, though felt by him as a sacrifice generously offered up, is the more easily borne as he will return to England in the fall, where he will have an opportunity of making other selections to supply the place of the animals he has just disposed of. When his cattle arrived here last fall, we had the pleasure of examining them, and then spoke of their fine qualities as we thought they merited. Recent opportunities of more thorough examination confirm us in the opinion we then formed, that *Buckingham* and *Cowslip* are among the very best improved short horns ever introduced into this country, and we are certain they will do much in the hands of their present patriotic and public spirited owner to give tone and character to our native stock.

Buckingham is rising 2 years old and has a body of exquisite form and most ample length.—He is a dark rich mahogany red and white, the latter so arranged as to give the happiest effect in furnishing relief to the eye. In his port he is majestic and graceful—and as he walked before us the other day through a small grove attached to our barn-yard, we almost conceited as he passed from point to point, saluting the females of his tribe, into which he had but just been introduced, that he was inspired with as much conscious pride of his own importance as is an Eastern Monarch when the charms of his Harem is unfolded to his longing and enraptured eyes.

He strode onward with an elastic step and head erect, until he came to his own associates, *Cowslip* and *Virginia*, who had preceded him a few weeks,—with these he halted; in them he recognized the matchless companions not only of his voyage across the Atlantic—but of his *love*—for they are both ancient to him, and if he did not pour out with the volubility of a biped, the joy that is *not* felt—he certainly did, with the eloquence of a noble beast, give evidence of his recognition, his good feeling, gallant attention, and unchanged regards. It was impossible to mistake the import of the speechless salutation

that ensued—each knew the other, and were all as happy as dumb beasts could be, in meeting again after a separation of a few weeks.

Whatever may be the fate of Buckingham, and his beautiful consorts, *Cowslip* and *Virginia*, we feel sure that America owes a debt of gratitude to their late owner, whose generous high-souled spirit induced him at so much expense, risk, and anxiety of mind, to bring them to the land of his adoption. Nor will the debt be less to our patriotic fellow citizen, Mr. Denny, who, with so much munificent liberality has purchased them with the laudable view of improving the stock of the country. Should he design to offer the services of this high-bred Bull, his neighbors should not fail to avail themselves of them, for without derogation from the virtues of any other animal now in our country, we question much whether there is one his superior in all the attributes of a thorough-bred improved Short-horned Durham.

The following were the prices at which they were sold.

Buckingham, \$750.

Cowslip, \$400.

Virginia, \$300.

Their pedigrees are as follows :

Bull, Young Buckingham—Calved March 24, 1834, by Col. Craddock's Buckingham, Dam by Scipio, g. d. by old Stephen.

Scipio and Stephen were the property of Mr. Charge, one of the most eminent breeders in the county of Durham. See *Herd Book*.

Stephen was directly descended from *Comet*, which was sold for 1000 guineas. *Old Buckingham* won the *Barnard Castle* prize in *Durham*, and was got by *Ephygum*, dam by *Young Rockingham*, g. d. by *Wonder*. *Ephygum* was by *Old Rockingham*, and won a premium in *Manchester*.

Heifer, Cowslip, is a beautiful fashionable roan of great size, fine form, and rising 3 years old, got by *Architect*, dam by *Rob Roy*, g. d. Mr. *Thornton's George*, g. g. d. *Burdon*. *Architect* was got by *Highflyer*; dam *Lady Brough*, a celebrated cow, sold at Mr. Wytham's sale, of Darlington. She is in calf by Buckingham. See *Herd Book*.

Highflyer was sold to Capt. Davis, at Mr. Mason's sale, of Chilton, for 210 guineas; *Rob Roy* was a fist rate bull of Col. Craddock's. *Cowslip* is now in calf by Young Buckingham.

Virginia, a light red and white, imported by the most noble the Marquis of Westminster, from *Ayrshire*, in April 1831, she was then 15 months old. She is of the stock of Mr. Aiton, and is also in calf by Buckingham.

DIFFICULTIES OF IMPORTING STOCK.

Mr. E. P. ROBERTS—

Dear Sir:—In reply to your remarks concerning English prices of Short Horns, I beg leave to state a few facts, which I shall do with all due respect for the gentleman whose recent importation has been assumed as an apparent criterion for fixing an estimate upon mine. A native of America, and particularly one whose inexperience, want of connexion in the country, and pursuits, unfit him for such an agency, must run great hazards at every step in travelling through the great cattle county of Durham in search of choice Short Horns. He is suddenly ushered in amongst a shrewd, wary body of men, many of whom will not hesitate to extol their cattle, and urge forward their sale thereby upon their pedigree and parts, at the expense of truth and honesty. The confiding stranger becomes presently inspired with confidence by the cordiality of his reception, and may be induced to make a purchase of an animal which had been fastened upon his fancy by these means, and in all probability would be afterwards recommended to a neighboring breeder, with whom his late host was in concert, in regard of trepanning a foreigner into a purchase of imperfectly bred animals with defective pedigrees, and this is practised with more impunity upon a foreigner and inconsiderate amateur in cattle, knowing that the former would be without the reach of complaint, while the latter, who would be looked upon as a novice in the trade with more means than brains, would be laughed at as a novice and told to profit by his experience.

As regards the expense of importation, which appears to have been very much underrated, we behold the constant risk of losing the animals by nautical and other contingencies, (that can only be estimated by professed breeders,) with much more solicitude than any incidental cost of transportation abroad.

I may have been lavish, in my own expenditure, but I consider myself amply repaid in the enjoyment of the gratification which I assure you I derive, 1st, in having been the humble means of bestowing a permanent benefit upon the soil of my adopted country, and 2dly, in having landed these valuable and matchless animals in health and condition, without a bruise or injury of any sort; which your own experience will doubtless instruct you has seldom, if ever, been done. There are numberless trifling precautions which would escape the mind of an unsteady minded person, and which can only be seen by the exertion of thought, which materially contribute to the safety and health of the animals, to say nothing of the veterinary skill frequently required aboard the ship, the want of which, has so often lost both horses and horned stock, while on their voyage to America. Longer experience, and a more intimate acquaintance with the Durham market, will eventually convince persons who may not be incredulous, of these plain truths.

In reference to my own stock, I imported them solely for my own estate, and never even intended to allow Buckingham to stand; and our melancholy disappointment in Middlesex county, especially in regard of grazing, has alone compelled their sale; but I am about to return to Europe, and if I be spared to come to America again, I

intend to bring the purest and most valuable brood stock of the choicest breeds of British cattle, which has ever been sent to this country.

I remain, dear sir,

Yours, very faithfully,

J. A. R.

REMARKS ON THE CULTIVATION OF TURNIPS.

As the season will soon arrive for preparing the ground and sowing Turnip seed, I have deemed it proper to give the following directions. After twenty-five years' experience, I recommend them as containing the result of my observation in this particular branch of husbandry, and if they should be carefully followed, the turnip crop which is regarded as an uncertain one, may be rendered certain.

The land suited to this crop ought not to be rich, but of a medium fertility, and pulverized by repeated ploughings and harrowings, until very fine; as near the consistency of pulverised virgin soil of new land as possible: and the turnip crop will very suitably succeed all early spring crops, such as potatoes, peas, radishes, beans, and clover after the first mowing, and will do without manure, provided the four first enumerated have been manured in the spring.

MANURE.

A small dressing of manure is necessary, say ten ox cart loads to the acre, of ashes or old cold manure, such as yard shovellings, &c. unfermented manures will spoil the crop by making it run to top, rendering the roots hot and rough.

SEED AND ITS PREPARATION.

This is one of the most important parts to be attended to. Without good, true seed, all the other labor is lost. I feel that I cannot impress the necessity of procuring good seed, too forcibly upon the mind of the agriculturist, as some persons from mistaken notions of the true character of this excellent root, have adopted the ruinous plan of raising their seed from refuse turnips—now it is well known among practical horticulturists, that if one such turnip be permitted to go to seed among twenty good ones, it will spoil the whole.

In order to hasten vegetation, and by that means escape the ravages of the fly, it is best to soak the seed in rain water twenty-four hours; but if wanted sooner a few minutes in warm water will answer. It is strongly recommended to soak the seed in lamp oil, copperas water, other poisonous solutions, which is said to impart a disagreeable flavor to the seed plant, which saves it from the fly. After soaking the seed, it ought to be rolled in plaster, or ashes, to dry them; and for sowing broad cast, I mix a pound of seed with a bushel of the mixture to the acre, enabling the sower to adjust his hand to one bushel to the acre. But those who have the clover or turnip drill may sow the naked seed in rows about 12 inches apart, by closing every other slide of the former which will save much time in hoeing.

TIME OF SOWING.

In the neighborhood of Baltimore, the seed may be sown from the 25th day of July to the 15th of September, the former for stock and the latter part for table; the ground being well prepared, the manure spread when necessary, once

ploughing, and then immediately give the ploughed ground one stroke with the harrow: then sow the seed while the ground is damp, and until fine, harrow, and the plants will soon appear. After they are up, should the fly be destructive, roll them with a roller. As it is apt to be dry at this season of the year, it is best to sow a little before or soon after a rain, to get the plants up; otherwise the seed often perishes; but sowing on fresh ploughed ground is a great advantage.

HOEING, &c.

After the plants are up and the largest leaf has grown as large as a cent, run the harrow through them, which breaks the crust, hurries the young weeds, and moulds the plants; and from the pound of seed, if the fly has not been destructive, there will be plenty of plants to admit of the harrow being run each way, which puts the ground in fine order: then commence with the all-important work of hoeing, without which all the other work will be nearly lost, unless the turnips are intended to furnish a neighboring market, than by thinning out the largest for market occasionally as they advance in size, the hoeing may be dispensed with. Each hand must take about 5 feet wide and use the hoe actively, and single out the plants as near 12 inches apart as can be done by the eye. This is a tedious operation: but 4 or 5 hands, sticking close to it, will soon learn to do the work quick, and get over a large piece of ground in a day; and after it is done, there will be one single plant to each foot of ground, instead of a dozen to the foot in some places, and only one to the yard in others, as is the case when the seed is sown thin, and left without hoeing or thinning; consequently in the one case, they will be too thick to grow, and in the other will not grow for want of culture. The large white flat or Norfolk is the best kind for early use; and the ruta бага, and yellow bullock, for late use. Either of these ought to be sowed earlier than the above—the first a month, and the latter one or two weeks. The white stone and tankard turnip are good kinds, particularly the latter, as it grows to a great size and is sweet.

ROBERT SINCLAIR.

MARL—ITS NATURE AND EFFECTS.

The following extract from Professor Rogers' late Geological Report, will give our agricultural readers some more distinct idea of this remarkable, and recently much talked of manure, which abounds in Monmouth and other countries of New Jersey.

Marl or green mineral loses nothing of its potency by a long exposure, even of years, to water and the atmosphere; in other words, it is not dissolved or decomposed, or changed, by the ordinary atmosphere agents which react so powerfully upon many other minerals, and consequently we are to regard it as nearly tact, with it to effect its decomposition, by the vital power of their organs, and imbibe a portion of some of its constituents.

"Mr. Wooley manured a piece of land in the proportion of two hundred loads of good stable manure to the acre, applying upon an adjacent tract of the same soil his marl in the ratio of about twenty loads per acre. The crops, which

were timothy and clover, were much the heavier upon the section which had received the marl; and there was this additional fact greatly in favor of the fossil manure over the putrescent one, that the soil enriched by it, was entirely free of weeds, while the stable manure rendered its own crop very foul.

"This being an experiment, an extravagantly large dressing of manure was employed, but not exceeding the usual average application more than twenty loads of marl surpassed what was necessary for it.

"Experience has already shown that land once amply marled, retains its fertility with a little diminution for at least ten or twelve years, if care can be had not to crop it too severely, while with all practicable precautions, the stable manure must be renewed at least three times in that interval to maintain in the soil a corresponding degree of vigor.

"The high and deservedly high, name, which the Squancum Marl now boasts, was an inducement to me to subject it to chemical examination with special care and rigor. In external aspect it differs in no respect from many other marls of the State, and, chemically studied, I do not find it to depart very materially from several others in the proportion of its constituents, though it does most certainly possess an amount of potash in its composition not a little astonishing. Others, however, seem to have nearly as much.

"At the pits, which are very extensive, the marl is sold at the rate of 37 1-2 cents the load.

It is transported by wagons to a distance, in some directions of twenty miles, and retailed, when hauled that far, at the rate of ten or twelve cents a bushel—being very profitably spread upon the soil in the small proportion of twenty-five or even twenty bushels to the acre. The fact that so small an amount of this marl is found efficacious to the soil, which after two or three dressings is permanently improved, and to a high pitch, by it, furnishes me one consideration for supposing that too generally the marl is spread with a prodigality surpassing all the necessities of land.

"A specimen of the marl from Throp's lowest layer yielded me, after reiterated trials, uniformly about the following, for its composition:

Silica	-	-	-	43,40
Protoxide of iron	-	-	-	21,60
Alumina	-	-	-	6,40
Lime	-	-	-	10,40
Potash	-	-	-	14,48
Water	-	-	-	4,40

99,68 in 100
grains.

In connexion with the foregoing extracts we add a few facts and experiments collected from the gentlemen whose names are used:

Messrs. Tunis and John B. Forman say that they have used Squancum Marl, at the rate of 100 bushels to the acre, on very poor, worn out, cold clay land: the produce of the first year was 50 bushels of buckwheat to the acre—and the second year (it being sowed the year before with clover and herd) it cut a ton or more of good hay per acre, after which about one hundred bush-

els of marl per acre were scattered over the seed, and it now yields two tons of good hay per acre. They have also resuscitated mowing ground, after it had become too poor to produce a crop, by spreading 100 bushels of marl per acre over the sod, and the effect was to mellow the soil, and produce two tons of hay to the acre; the hay produced was of a superior quality, and free from weeds. One hundred bushels of marl to the acre of land, so poor as to have been considered useless, will raise a crop of from 12 to 20 bushels of rye to the acre, and leave a fine sod of white clover. From three pints to two quarts of marl per hill of potatoes (the hills three feet apart on the ground) has produced from 200 to 250 bushels per acre. They have found the marl a very superior manure for turnips, and garden truck in general. The effect of marling lands planted with apple trees, has an astonishing effect in improving the trees and fruit. They have known marl to be spread on bog meadow, and to cause double the quantity of superior hay to be produced. A neighbor of theirs, a few years since, sowed out of a basket, about 60 bushels of marl, on three or four acres of very poor land, and reaped about 100 bushels of buckwheat.

Dr. Forman states that two or three years ago he broke up a small piece of land, which forty years had been considered too poor to plough, and applied about 100 bushels of marl per acre; the land produced a good crop of rye and has cut about a ton of clover hay per acre every year since. He also states that Squancum Marl was first used about thirty years ago by Derick Chamberlain, under the name of *creek mud*; it caused the piece of land thus manured, to produce double the quantity it had done before, and the effect on the land is still visible.—*Franklin Mercury*.

We copy some interesting suggestions to-day on *Strawberries* from the essay of an English gentleman in this country.—*Newark Daily Advertiser*.

STRAWBERRIES—BARREN AND BEARING.

This fruit is certainly quite as fine here, as in England. We have the real Hautbois—that Queen among strawberries—of which very few people in this country have eaten; for the fruit which is so called by many gardeners, is not the true Hautbois, although it be a little like it in perfume. What is in general thought to be Hautbois is nothing more than the Alpine, a small light red strawberry, which falls from the stem as easily as the raspberry does; the real Hautbois, however, does not ripen well in the upper part of the state of New York.

Independently of the slight approach to the perfume of the Hautbois, the Alpine plant resembles it in the shape and peculiarity of leaf which is deep green, glossy and crimped. In fact, the leaves of both are exactly alike, excepting in size, the true Hautbois being twice as large as the Alpine. The flowers of the latter are very different the male and female flowers are on separate plants. The female blossoms can easily be distinguished from the others; the former appeared like a green turf, with small yellow dots around the base of the circumference. The male flowers are studded with stamens, about a third of an inch

long, having little yellow heads filled with the farina.

The fact is so settled and certain, respecting the sexes of plants, that it is almost absurd to enter into any argument about it; yet so much ignorance and carelessness prevail among the cultivators of strawberries, that the knowledge which men of science have obtained is of no avail. I once heard a gentleman say that his strawberry plants always bore fruit and that no care was taken to observe the due proportion of barren and bearing blossoms! This person was a botanist—a closet botanist—one who used to pick up flowers in the fields, in woods, in the crevices of rocks, and had plants sent to him from abroad! He would talk for hours on the subject, and was in full correspondence with the learned of Europe! He knew of the difference, to be sure, but he insisted that nature regulated all this matter and never left any thing to chance.

We frequently hear of beds which blossom freely and yet never bear fruit; ignorant people attribute the failure to frost, to a too rich or a too poor soil; and in fact a hundred reasons are given for the loss of fruit. "My soil is not suited to strawberries," said a gentleman one day to Dr. Bentley, "and I am compelled very reluctantly to give up the pleasure of raising them. I have tried various positions for their location, and have made experiments with different kinds of manure, to no purpose. I have tried to raise them on rich sandy loam and on poor land, but if I get a crop one season, they disappear in the second. Nay, so unsuited is my soil to their nature, that those runners which crept under a fence into a rich border of my garden, from a neighbor's bed, which always bore abundantly, never even made a show of fruiting. You can look at them now, they are not quite out of blossom."

Dr. Bentley examined the plants—they were all males. He then went to the neighbor's garden, and saw there, likewise, that there were very few bearing plants. "You will not have many strawberries this year," said the Doctor to the gardener.

"Oh! you are mistaken," said the latter, "There was the greatest show of blossoms I ever saw, and there has been no frost to hurt them."

"Well—take my word for it, my friend," said the Doctor, that this bed will not give you six quarts of strawberries this year, and if you do not weed out all the plants that bear these blossoms"—pulling up some male blossoms—"and fill in the vacancies with plants of this kind"—shewing him the female blossom—"you will have no fruit at all next summer."

The man sneered at the Doctor—he had but few strawberries, as was predicted, and the next summer, about the time that he expected the fruit to set, not seeing any, he dug up the bed and made a new one!

A strawberry bed never will fail in any kind of soil, if the proportion of bearing and unbearing plants be as one of the latter to ten of the former. Excess of rain or drought, cold or heat, may injure the size and flavor of the berries, but strawberries there will be great numbers, if not of good quality.

You may recollect when school-boys, that for two successive years we had no strawberries in

what we called our own little garden. We thought we had "killed them with kindness," as we were constantly working among them and keeping them free from weeds. The plants grew well and blossomed well, but they did not reward our care, for they gave us no fruit. I now know that all the plants must have been of one kind.

Mr. Thorn sent to a gentleman in Burlington for some plants of the Higbee strawberry. They arrived in good order after a fine August rain of two days, and the next May they were all in flower—but there was not a female plant among them. Two or three runners had been set apart by themselves to give runners for a new bed: from these runners, which happened to be all males, the plants which had been sent to Mr. Thorn had been taken. Mr. Thorn did not find out the cause of his misfortune until our good Doctor saw the blossoms; of course the whole bed had to be dug up. If they had been female plants, it would have only been necessary to take up every tenth plant and deposite a barren plant in its place.

The male plants of certain kinds of strawberries are more apt to send out runners, than the female. For instance: in the Higbee, the male plants would soon cover the bed with their runners to the exclusion of the females, whereas in the real, dark brown Hautbois, the female plants are strongest and completely occupy the ground.

The best plan therefore is to have a few plants of both sexes in different places, that a proper proportion of each may be taken to make a new bed. This precaution is necessary with the Hautbois, because there is no difference in the shape of the leaf, and of course we never could tell the male from the female, unless the plant were in blossom. But in the Higbee, or large solid preserving strawberry, the case is different, the latter being rounder, fuller, thicker, of a paler green, more cramped, and less glossy. A practised eye can tell the difference between them immediately.

One reason why the Chili strawberry is said to be a "she bearer," is because the barren plants soon predominate. But if one steady course be pursued, there will be no trouble with the cultivation of any of those strawberries which have male and female blossoms in different plants.

A strawberry bed, well managed, must never have a single runner in it. The plants should be fourteen inches apart each way, if in a private garden; but if the fruit be for sale, then they should be ten inches apart in one direction, and three feet in the other, so as to allow the hand plough to be used between the rows. This hand plough will save a great deal of labor, as three men (horses will not do) will turn over more ground, and more effectually, in one hour, than these three men could do in twelve with the spade.

When the first season is over, Dr. Bentley, with a garden tool called a half moon cutter, has all the dead and broken leaves, as well as the runners cut off close to the plant. The hand-plough is then used, and thus the plants have time to recover from the tugging, and pulling, and trampling which they have undergone during the period of yielding fruit.

[From the New York Cultivator.]

THE WHEAT WORM.

JESSE BUEL—Having seen a call in one number of the useful paper, the Cultivator, for information in relation to the weavel, or wheat insect, I send thee the result of my observations and discoveries, which if not fully satisfactory to thy readers, I hope it will induce some of them to pursue my investigation, and if the farmers generally arrive to the same conclusion as myself, I think the time not far distant, when they will totally destroy the race of the destructive little foe.

In the first place, I have found that the insect which attacks the wheat is a small snuff-brown fly, which deposits its eggs in the hull of the wheat, when it is in full blow, the hull at that time being open. These eggs produce from three to fifteen little maggots to each deposite, and by the time the kernel gets to its milky state, they are sufficiently matured to convert it to their food.

And as the wheat becomes hard, they are so far advanced in the stage of their existence, as to prepare for their next and more elevated state of life, in the form of the fly. To effect this, they form to themselves, a covering or incrustation, which I shall compare to that of the cocoon of the silkworm, in which they are protected for a next year's development. And in this dormant state they still remain in the hull of the wheat, to be brought forth by the re-animating heat of spring, in the most perfect form of this insect life, the small snuff-brown fly; but like all other insects, can at all times be brought to active life by a proper degree of heat. I have carefully watched the wheat from the time of heading to maturity, and have discovered the fly, in numerous instances, pushed into the hull of the wheat while in the blow, and on examining, could discover the small eggs, or deposite, which produces the little maggot, which we term the weavel. It is but a short time they remain in the active maggot form, but the precise time I cannot say, but probably about as long as the wheat remains in the milky state. A few years past at the time of harvesting my wheat, the season of harvesting was very rainy, and I put my wheat into the barn very damp, which caused it to heat in the mow. In the course of the fall I had occasion to go to the upper part of the barn, and I found the inside of the roof literally covered with this same little fly, which had been prematurely hatched by the heat of the mow. I thrashed the wheat by a machine, and on cleaning, got several quarts of the cocoons of the weavel probably half of which were hollow, and the hole plain to be seen, where the fly escaped. The others were sound, and continued the insect in the same state of life as when it encased itself to be incubated by the heat of the next season. And this perfectly accounted for the innumerable swarms of flies on the roof of the barn.

In the spring following, or near the first of June, I was in my barn yard, when I had thown out the straw of my wheat, and I found the heaps covered with the same kind of fly as was on the roof of the barn the fall before. And I have no doubt these flies were produced from the cocoon of weavel and like all other flies, live

on putrid and decayed substances; the manure of the yard affording ample subsistence, as they at first cannot fly—neither could those in the roof of the barn.

Now I conclude these flies are all hatched out about the same time, and the usual season that wheat is in the blow, is the exact time when these flies by a law of their nature, deposit their eggs for the continuation of their species. And this accounts for the fact, that very late sown wheat, and some pieces of very early wheat, escape the time of their deposit. In proof of the foregoing, I will mention a corroborating circumstance, which happened to a friend of mine, the same season I have been mentioning. He went east to sell the right of a threshing machine. When in Orange county in Vermont, wishing to show the power of his machine, requested the privilege of threshing. A man whose name I have now forgotten, told him he had a quantity of wheat which was very much destroyed by the weavel and mow heat, which he might thresh and welcome. Some time after he commenced threshing he found himself and machine covered with an immense quantity of small flies which could not fly, which no doubt were the production of the weavel, and hatched in the fall by the heat of the mow.—The next parcel which he threshed, in the same neighborhood, and put up in good condition, produced no flies. I am particular in mentioning this fact, to show that the weavel is contained in the dormant state in the wheat, straw and chaff, and hatched in the spring following, from manure, barn litter, and heaps of straw, and is probably in the vigor of its life at the time wheat is in the blow, and at that time deposits its eggs to be hatched the next season; and that wheat in the soft state, is the only article proper for nourishing their young while in the maggot form, and affording them safe keeping through the winter.

Now should these become established facts, it is plain to be seen that the united exertion of farmers can, in two or three years, totally destroy their race.

The manner in which I propose, is to thresh the wheat in the fields, which may easily be done by threshing machines, and burn all the straw and chaff in the fields, and burn over his stable ground. Let this be practised by every person who raises wheat, and in two years, I am bold to say, we shall not be troubled with the weavel. The wheat should be floured in the winter, and such as is kept for seed should be subjected to some process, to destroy what few insects may be lodged among it. But the farmers may rest assured, that the great evil of the insect is not in the seed wheat, but in the straw and chaff.

From thy friend, HENRY GREEN.
Kingsbury, N. Y., 15th mo. 16th, 1836.

[From the Genesee Farmer.]

CULTURE OF THE CHINESE MULBERRY.

BY T. S. P.

The great importance which this branch of industry has now assumed, renders it proper that the best mode of cultivating the *Morus Multicaulis* should be fully discussed. My experience is not very extensive in the propagation and rearing of it, and feeling apprehensive that some re-

marks which have recently been published in the *Genesee Farmer* are not sufficiently guarded, and that they may therefore lead to disastrous results if adopted by the inexperienced, I will venture to submit a few comments upon them.

Of a series of interesting communications from W. W. B. it is stated in the third number, on the authority of Joseph Davenport, that the cultivation of the Chinese Mulberry should, during the first and second seasons, be restricted to cutting off the weeds above the ground, and stirring the surface but little, in order that the soil may become hard. The object in view is to prevent the too luxuriant growth of the shoots, and give to the wood the necessary degree of compactness to withstand the winter.

The Chinese Mulberry requires generous treatment as much as any plant I am acquainted with. If it does not receive it, the growth will be stunted, and the root and stem be equally dwarfish. It is very true that the hardness of the wood may be increased by the mode of culture recommended above; but the development of the plant will be so gradual as to furnish very limited means of increasing it; and more than that, the abundant supply of food for the silk worm, (the end and aim of the culture,) will be delayed perhaps for several years. It would in my opinion, be better to treat the plant as an herbaceous perennial until it had acquired greater strength, for under this course a plenty of wood might be secured; which in these times is in continual demand; and it would also yield a considerable quantity of food for the worm during the second and third year from the cutting.

The selection of a proper site for the mulberry is an object of great importance. If it be planted on a high situation, and in a dry and moderately fertile soil, it may be subjected to the most careful and continued culture, without endangering the life of the plant upon the accession of frost. All writers agree that a low and moist situation is unsuitable for supplying food of a proper quality for the worm; and it is doubtless a less favorable locality for promoting the welfare of the tree. Gross nourishment will produce a gross individual. But in regard to the plan advocated by Joseph Davenport, although with his experience and observation he may successfully pursue it by following or varying it according to circumstances, yet the adoption of it by cultivators at large might not be attended with the same happy effects. An eligible site should, I think, be greatly preferred to attempting to control the growth by an imperfect and precarious supply of sustenance. To guard against danger from frost during the first and even second winter, it would be an easy matter to take off the branches at the surface of the ground, and by means of a plough turn a ridge over the row. Such a protection would no doubt be effectual, especially in a northern climate, where there is not the same vicissitudes as in southern regions. It is the changeableness of the latter which is more to be dreaded than the continued cold of New England or New York.

If the soil for a mulberry plantation be at first rather thin and meagre, there will still be no necessity for manuring it. My attention has recently been called to a piece of ground, used as a

nursery for rearing the Chinese mulberry during the last four years. When first appropriated to this purpose, it was exceedingly poor, but the fall and decay of such a mass of foliage has alone wrought an entire change in its quality and appearance; and it looks now as if it had been freely manured each successive season. And although in regular plantations, the leaves will be stripped for the worm, yet a large number must remain at the close of the summer, under the most rigorous system of exaction, to return something to the earth, and consequently to improve it.

As however some doubts seem yet to exist whether the *Morus Multicaulis* will be able effectually to resist the winters of the northern states, and as it has been suggested, and indeed rendered probable by the remarks of W. W. B., that plants raised from the seed will be more hardy than the parent, it may be desirable to encourage the propagation in that mode. Heretofore the wood has been in greater request than the berries; but I am informed by a friend that he had trees to bear very abundantly last year; and I observed one, late in autumn, that had been stimulated by the mildness of the weather to expand its fruit buds, which were almost as numerous as those of the peach. The fruit is represented to be black and remarkably sweet. I have spoken for a small quantity of seed to be saved next summer, which I intend to offer to W. W. B., as a slight testimonial of respect for the laudable zeal he has displayed in favor of the silk culture.

T. S. P.

Beaverdam, Va., 3d mo. 28, 1836.

[From the Maine Farmer.]

BUTTER.

Mr. Holmes:—As great improvements may be made in the quality as well as quantity of butter from the same milk, by some variation from the common mode of managing the milk—I have therefore made some extracts from a valuable English publication in my possession, entitled a *Complete History of Modern Agriculture*, by R. W. Dickson, M. D.

1st *Exp.* Several large tea cups exactly similar in size and shape were filled at regular intervals, the last being filled with the dregs of the milk. From some cows the quantity of cream obtained from the last drawn cup, exceeded that from the first in the proportion of sixteen to one.

2d. The difference in quality was greater than the difference in quantity. In the first cup the cream was a thin tough film, and very white, but in the last of a thick buteracious consistence, and of a glowing richness of color, that no other kind of cream is found to possess.

3d. The difference in the quality of the milk was perhaps still greater than either, in respect to the quantity or quality of the cream. In the first cup it was a thin bluish liquid, as if a large portion of water had been mixed with ordinary milk; while in the last cup it was of a thick consistence and yellow color, more resembling cream than milk both in taste and appearance.

4th. The cream which first rises is richer in quality and greater in quantity than what rises in a second equal portion of time, and the like difference in a third space of time, and so on.

5th. Thick milk always throws up a smaller proportion of the cream it actually contains to the surface, than milk which is thinner, but the cream is of a richer quality; and if water is added to that thick milk, it will afford a considerably greater quantity of cream than it would have done if allowed to remain pure; but the quality at the same time is greatly debased.

6th. Milk which is put into a pail or any other vessel and carried in it any distance so as to be agitated and in part cooled before it is put into the milk pans to settle for cream, never throws up so much nor so rich cream as if the same milk had been put into the milk pans directly after it was milked.

From the above it follows

1st. That cows should be milked as near the Dairy as possible, and in addition to its preventing the agitation and cooling of the milk if pastures are near the Dairy, the cows are not heated by driving.

2d. It is highly injurious to put the milk in large Dairies into one vessel as it is milked, to remain there until all the cows are milked before it is put into milk pans, and for an additional reason to the agitation and cooling, that it mixes the bad with the good milk.

3d. The first drawn milk should be kept separate from the last drawn as the quality of the butter will be improved in proportion to the smallness of the proportion of the last drawn milk that is retained.

4th. If the quality is only alluded to, it is not only necessary to separate the first from the last drawn milk, but also to take nothing but the cream that is first separated from the best milk. The remainder of the milk, may be either employed in making sweet milk cheeses, or it may be allowed to stand to throw up cream for making butter of an inferior quality.

5th. According to the preceding, the best butter could only be made with economy in those dairies where the manufacture of cheese is the principal object. In such dairies a small portion of the last drawn milk should be set apart for butter, all the rest may be made into cheese while it is yet warm from the cow and perfectly sweet, and if only that portion of cream which rises during the 3 or 4 hours after milking is to be reserved for butter, the rich milk which is left, after the cream is separated, being still perfectly sweet, may be converted into cheese with as great advantage nearly as the newly-milked milk itself.

9th. As purchasers would not be found wanting to buy the fresh butter made in the manner above pointed out, at the price that would indemnify the farmer for his trouble in making it, these hints are thrown up merely to satisfy the curious in what way butter possessing this superior degree of excellence may be obtained, but for the ordinary market, the writer is satisfied, from experience and attentive observation, that if in general about the first drawn half of the milk be separated at each milking, and the remainder only set up for producing cream, and if that milk be allowed to stand to throw up the whole of its cream, even till it begins sensibly to taste sourish, and if that cream is afterwards carefully managed, the butter thus obtained will be of a quality greatly superior to what can usually be obtained

at market, and its quantity not considerably less than if the whole of the milk had been treated alike. This therefore is the practice that is thought most likely to suit the frugal farmer, as his butter, though of a superior quality, could be offered at a price that would always insure it a rapid sale.

From the preceding the following course is recommended to farmers, particularly those who have small dairies. Let a quantity of milk from the first drawing, sufficient for family use, including the supply of cream, be taken from the cows on a farm, and set the remainder for cream to make butter for the market. It will take less time to convert such cream into butter, and the butter from such cream will be of a superior quality.

To satisfy myself of the difference in the milk in the first and last drawn from the same cow, I had a tumbler nearly filled with first drawn milk, taking about an equal quantity from each teat—a second tumbler was then filled with about an equal quantity, if any thing a little less of the last drawing, taking about an equal quantity from each teat.—The result was scarcely any cream from the first, and it could not be well separated from the milk.—The cream did not exceed in weight 30 grains, and hardly any yellow particles in the cream—from the last drawing, there was 339 grains of cream, yellow and thick. The milk stood in the tumblers about 10 hours.

C. V.

Hallowel, June 17, 1836.

From the Alexandria Gazette.

EMIGRATION TO THE WEST.

I am pleased to see that the subject of improving our lands has enlisted some attention, and that a proper sense of its importance is beginning to be felt. Your correspondents will be justly entitled to thanks, if they succeed in exciting such an interest in the public mind as shall eventually lead to action on this subject.

I agree with your correspondents that much may be done in the way of improvement, and that concentrating our efforts is the surest way of accomplishing this object. An association of leading farmers could not fail to have an influence, and it would only be, at most an agreeable tax upon their scientific attainment and leisure. Whatever may be done, however, ought to be done with due consultation, and with a view to the permanency of the Society and a general diffusion of its usefulness.

It cannot be denied that Agriculture is one of the leading interests of our country, and as it regards some parts of it, the principle dependence of the people. I will not undertake to say that our situation is one of exclusive reliance upon this interest, but it is very certain that our prosperity and happiness are greatly involved in it. To promote it then, and to elevate it to the highest perfection to which it is capable of being carried, is the duty of every man, whether he considers his own interest or has philanthropy enough to consult that of his neighbor. There are other views connected with this subject besides those which merely relate to its pecuniary bearing. It is intimately identified with the social happiness and moral elevation of the com-

munity. Of what avail are our various institutions for the promotion of the moral interests of the people, if their temporal condition is a source of perpetual discontent? Or, how can that people ever be happy whose labors are unrewarded and whose patience is worn out? It is this view of the subject, in my opinion, which will bring it home to the solicitude of those who have other accounts to settle with their consciences beside those of dollars and cents.

I look upon the loss of every virtuous and active citizen, whether by death or removal as a great drawback upon the interests of the community in which he lived, to say nothing of the vacuum which is produced, by such loss, in his immediate family circle. It is not the least of the ends expected to be secured by an improved condition of our lands, that it will have the effect to stay the rage of emigration by holding out to the farmer a prospect, under all the circumstances, equally as advantageous as any that can offer elsewhere. In pursuance of this end, it will be only necessary to convince him that go where he will he can effect nothing without industry and economy: that by the unremitting exercise of these virtues here he can multiply his gains; that by a better system and a stricter adherence to it, he can remove many of the difficulties which he before thought insurmountable. In short it will be only necessary to point him to the prosperity of his neighbors and to explain to him the secret of their success. If this do not stir up within him the spirit of emulation and a desire to imitate their example, then the loss of such a man will be a gain to the community, and the sooner they get clear of him the better.

The very liberal prices which the commodities of our country command and the moderate expense incurred in their transportation to market, are important points to be kept in view in comparing our situation with that of others. It will not do to say that the western lands are three times as productive as our own in market, and that it costs no more to get them there. But this we know is not generally the case, and that the diminution in price and the additional cost of transportation to market will reduce their products at least one third, and that by this means they stand in relation to us only as two to one. Suppose now, by the improvement which it is thought our lands are susceptible of, which it is proposed to attempt, they can be made to yield double the quantity they now do, a consummation by no means improbable, shall we not in a pecuniary point of view be equally as well paid for our labor? But admit, for the sake of having the sorriest side of the picture before us, that by no mode we may adopt, can our lands be brought to produce more than half as much again as they do at present, still the superior health of our country, the advantages of a better society, the endearments of home, kindred and friends, and a thousand enjoyments which we should not find in the west, preponderate in our favor and make amends for the trifling deficiency of our crops. Besides, it should be remembered, that the west is not exempt from scenes of disappointment, wretchedness and woe, but that human misery is as common there as here, and all who

go thither have their fortunes to seek amidst imminent perils and disasters. Before launching, therefore, upon so frightful a sea of experiment as that of emigration, it becomes every individual to weigh well the consequences.

Speaking of emigration reminds me of an incident I was once an eye witness of, and which perhaps it may not be deemed out of place here to relate. I had been travelling in the "far west," not for the purposes of seeking a situation on which to locate myself for life, but rather as a traveller, who after pursuing the bent of his curiosity through a land represented as flowing with milk and honey, was on his return to his friends, with the fullest conviction from what he had seen, that with all its imperfections, there was no place like home. I had understood that a gentleman, formerly of my native county, was living at a short distance from where I made a stop, and I concluded as it was not much out of my way, that I would call and see him. Accordingly I set out for the residence of the emigrant with a desire to see how he was established, and to give him such information as I possessed in relation to his old friends across the mountains. I rode up to his premises about sun-set, my journey for the previous two hours having been accomplished through a dense atmosphere of mosquitoes. I found my host engaged in repairing the fires that had been built around his dwelling at short distances, to protect the cattle from the annoyances of this terrible insect; and it was singular to one not accustomed to the sight, to see how well the dumb brutes understood this necessary precaution in their behalf. They walked to and fro through the spaces between the fires, lashing themselves with their brushes and rubbing each other as they passed, with an instinct altogether remarkable. After contemplating this scene for some moments, I was ushered into the—not house—but log cabin of the emigrant, with a cordiality of manner that told me where he was raised. He had been a resident of this spot for about three years, and after incessant toil and innumerable vexations had succeeded in building the cabin in which he lived, and had cleared about ten acres of land. He had also got some stock around him, but the tormenting inflictions of the mosquitoes had so worried the cattle that their appearance indicated the greatest suffering. He informed me that the purchase of his land and the expenses of his family, some of whom had been sick most of the time, together with the expenses incurred in improvements on the place, had exhausted his means and he was then without the ability to remove although he was anxious to do so. The residence of our emigrant was five miles from any other human habitation, was accessible only by one wretched road, and was rendered still more intolerable by the unpleasant notes of the whip-poor-wills and frogs,—his most familiar acquaintance. And here, in this dreary solitude, cut off from society which they loved and by which they were beloved, dwelt as excellent a man and as admirable a woman as ever forsook abundance and happiness at home, among their friends, to seek them in a fuller measure, abroad among strangers. He was of respectable connexions, had received a good education, and studied law for a considerable time with a view of making it a profession; but distrusting his abilities,

or finding the pursuit hackneyed and overdone, and its ranks filled up with a doubtful admixture of materials, he determined like a wise man, to embrace the profession of his fathers and follow the plough for a living. He married a beautiful and excellent girl, was in a thriving way in the neighborhood in which he was born, and with his application and economy, would, no doubt, have succeeded to wealth. But the emigrating mania broke out in his neighborhood, and he fell a victim to it. He sold out and with two or three others bent his way to the land of promise. Three years had now rolled around since his departure from home, and he assured me that the whole period had been one of sickness and disappointment. He had not despaired, for he was not of a temperament to despair, but he had lost much of the natural cheerfulness of his disposition, was driven, by necessity, into a sort of stoical school of philosophy, thought the world by no means poetical, but a plain matter of fact concern, and that part of it called "the west," in particular, not the thing it was cracked up to be. In fact, our hero was in the "sear and yellow leaf," not of years, but feeling; and it was in some mood as this, while setting at table on the second afternoon of my arrival, that our conversation turned upon home and the thousand delightful associations connected with it. "We have not found things turn out as we expected," said the emigrant in a subdued tone, "but we must bear with them and hope for something better for the future—it is a long lane that has no turn, and our prospects may yet brighten up and leave us nothing to be sorry for." "They may brighten up," said the wife, "but it will only be when you and I are in the grave; or too old to enjoy them. What prospects have we here in this wilderness, deprived even of the sight, much less of the friendly intercourse of neighbors, that can compensate for the sacrifices we have made and the sufferings we have endured? What power is there in wealth, even suppose it attainable, or in honors, suppose these to be showered upon our house, that can make the heart glad that yearns for its kindred and longs to go back to its own home and the home of its earliest and dearest associates? Yes, our prospects may brighten, we may not always be as we are, without neighbors and the pleasures of society, but we shall always have something to be sorry for, while the friends we loved and scenes we delighted in, are stricken from our sight and no more to be enjoyed forever." Here her articulation became obstructed,—her heart was full—and she gave way to a flood of tears. As soon as I could wipe away a little drop that had gathered in my own eye, in spite of all I could do, I turned to look at our philosopher—but there was nothing of the stoic in him—his visions of wealth and all his anticipations of the future, had suddenly given way before the simple but affecting eloquence of his wife—he melted to tears.

And thus it will ever be so long as the feelings remain uncorrupted—the heart has its demands, and they must be satisfied,—and unless they are, the world and all its blandishments are as "sounding brass and a tinkling cymbal." Nor is it so easy to form new friendships to supply the place of those which grew with our youth, and ripened with our maturity.

The scenes that begun, and the associations that cemented them are no longer present to the senses, and wanting these disinterested and indissoluble features, our after attachments are generally any thing but of the heart. There are persons it is true, to whom one place is as dear as another, and who care but little for any one else, so that all goes smoothly with themselves. Such persons are to be pitied—they are as strangers in the world; do not rest upon its green spots, drink not at its most refreshing fountains, pass the richest enjoyments by unheeded, live uncared for, and die unwept. It was said by a pious old gentleman that if he were condemned to a solitary exile in some remote island of the sea, and were to indulge in a single request, that request would be for his Bible. "You might carry your Bible with you," said his son, "but I would swap it for a dog or any living thing that I could teach to love me and share in the dreariness of my abode." This might be accounted infidelity by some, but others would call it nature, speaking directly from the heart.

The picture I have attempted to sketch above is not an individual case, standing out as an exception, and to be explained by some false step or imprudent conduct of the emigrant—it will serve, with some extenuation, perhaps, as a tolerably correct portrait of the sate of all who abandon kindred, home, friends and comfort, with the hope of being reimbursed for the sacrifice by the much exaggerated advantages of the west. The writer of this has met with many in the west who went there with expectations that have never been realized. Some, indeed, he has seen, who, in their worldly accumulations, had reasons to be satisfied, but they were not, and held themselves as a sort of sojourners there, with the flattering but delusive hope of returning, loaded with wealth, to the never forgotten land of their childhood.

HOMESTEAD.

Fairfax Co. Va., May 18, 1836.

PRICE OF COCOONS.—In our January number we had an article on the "price of making cocoons," in which we stated that a silk-grower of Mansfield was ready to contract for "making," cocoons at \$1 a bushel. We supposed no person could mistake our meaning; but it seems a correspondent of the New England Farmer understood us to say the offer was to "furnish" them at that price, for in this manner he misquotes our language. Had he read the article, as originally published, he could but have seen that we alluded to the price of making on contract, having the foliage, &c. furnished, and not to furnishing the manufacturer with them from the product of his own trees. The correspondent affects to doubt the "correctness of the proposition," and "to test," it offers \$2 for 3000 bushels, [\$2 a bushel we presume] to be delivered at the Farmer office any time in the present year." It is probably known to the writer that cocoons have been selling through the season at \$3 a bushel, and that it is expected they will advance 25 or 30 per cent. the coming season. Under these circumstances, he can hardly expect that any silk-grower will furnish him at 50 per cent. discount; but if he has the foliage for

the 3000 bushels of cocoons, the silk-grower of Mansfield will gather it and make the cocoons at the price stated.—*Silk Culturist.*

BALTIMORE PRODUCE MARKET.			
These Prices are carefully corrected every MONDAY.			
	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	7 50	8 75
CORN, yellow,	bushel.	80	81
White,	"	75	—
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR&MEAL,—Best wh. wh't fam	barrel.	8 00	8 50
Do. do. baker's.....	"	7 50	8 00
Do. do. Superfine,....	"	7 00	7 25
SuperHow. st. in good de'd	"	7 75	8 00
" " wagon price,	"	6 75	6 87
City Mills, extra,.....	"	—	8 00
Do.	"	—	6 87
Susquehanna,	"	7 75	8 00
Rye,	"	5 25	—
Kiln-dried Meal, in hhds.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
GRASS SEEDS, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 75	3 00
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	7 75	8 50
Slaughtered,	"	—	—
Hops—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	42	46
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,.....	ton.	—	3 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	96	—
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	4 75	5 00
" brown and red,....	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
" for segars,	"	5 00	10 00
" yellow and red, ...	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 25	5 00
" ground leaf, ...	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	—
Red,	"	1 60	1 70
WHISKEY, 1st pf. in bbls.....	gallon.	34	35
" in hhds.....	"	33	33 1/2
" wagon price, }	"	31	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	—
To Wheeling,	"	1 50	—
Wool, Prime & Saxon Fleeces, ...	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	22 24

POTATO OATS.	
100 Bushels seed potato oats—a choice article—	
for sale by	JAMES MOORE,
	Light, near Pratt st.
Mh 22	at the Maryland Agricultural Repository.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	16	17
Shoulders,....do.....	"	12	—
Middlings,....do.....	"	13	—
Assorted, country,....	"	10	11
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	20
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	50 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 75	1 81
CHOP RYE,.....	"	1 75	1 81
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,.....	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 37	—
Mackerel, No. 1, \$8....—No. 3	"	—	5 75
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	Farmers Bank of Virginia.....
Branch at Baltimore,....do	Bank of Virginia,.....do
Other Branches,.....do	Branch at Fredericksburg do
MARYLAND.	Petersburg,.....do
Banks in Baltimore,....par	Norfolk,.....do
Hagerstown,....do	Winchester,.....do
Frederick,.....do	Lynchburg,.....do
Westminster,.....do	Danville,.....do
Farmers' Bank of Mary'd, do	Bank of the Valley,....do
Do, payable at Easton,....do	Branch at Romney,....1
Salisbury,....5 per ct. dis.	Do. Charlestown,....do
Cumberland,....do	Do. Leesburg,....do
Millington,....do	Wheeling Banks,....3 1/4
DISTRICT.	Ohio Banks, generally 3a4
Washington, } Banks, 1.	New Jersey Banks gen. 1 1/2a2
Georgetown, } Banks, 1.	New York City,....3a4
Alexandria, } Banks, 1.	New York State,....2 1/2a3
PENNSYLVANIA.	Massachusetts,....2a2 1/2
Philadelphia,....do	Connecticut,....2a2 1/2
Chambersburg,....do	New Hampshire,....2a2 1/2
Gettysburg,....do	Maine,....2a2 1/2
Pittsburg,....do	Rhode Island,....2a2 1/2
York,....do	North Carolina,....3a3 1/2
Other Pennsylvania Bks. 1 1/2a2	South Carolina,....3a3 1/2
Delaware [under \$5]....3a4	Georgia,....3 1/2a4
Do. [over \$5]....do	New Orleans,....6
Michigan Banks,....5a	
Canadian do.....5a	

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

July 5 2t

Light near Pratt st. wharf.

CONTENTS OF THIS NUMBER.

Account of sale of imported stock—difficulties of importing stock—remarks on the cultivation of Turnips—marl, its nature and effects—Essay on the culture and cause of barrenness in strawberries—Essay on the culture of the Chinese Mulberry—Essay on the best mode of producing butter and managing a dairy—Emigration to and hardships in the West—price of cocoons—prices current—advertisements, &c.

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

AGRICULTURAL AGENCY in Philadelphia (No. 5, SOUTH FIFTH-STREET.)

THE Subscriber continues to purchase and sell on commission, Cattle, Sheep, Hogs, Asses, and other domestic animals of choice breeds or qualities, suitable for breeders.

He has now on register for sale, the following animals, viz:

VERY VALUABLE SWINE.

One boar and three sows, of the genuine Norfolk thin rined breed, one year old and upwards.

Also, five sows and four boars of the Philadelphia white breed—some nine and the rest twelve months old. Most of the sows of both kinds are supposed to be in pig.

Price two've and a half cents per pound.

FIRST RATE JACKS AND JENNETS.

Two Jacks and three Jennets, of the largest size and best blood, of good ages, and remarkable fine breeders.—The Jacks are near 14 hands high, and the Jennets 13 hands and upwards. Two of the Jennets are in foal by an imported Maltese Jack, full 14 hands high. Besides these, which are such animals as can seldom be obtained, the subscriber can at all times procure to order good Jacks and Jennets at fair prices.

CHOICE CATTLE.

Several bulls, cows and heifers, of the Improved Durham Short Horn breed, with indisputable and excellent pedigree, are for sale at prices much below those recently obtained in this vicinity for animals in no respect better.

MERINO AND BAKEWELL SHEEP.

The subscriber has made ample arrangements to meet this summer the numerous demands upon him for choice breeders of the above kinds.

All orders sent him early, say previous to the first of August next, will be filled promptly from the best flocks in this region, which are believed to be equal to any in the Union.

SHORT WHEAT.

The subscriber is sole agent for the sale of this year's crop of this most extraordinary variety of Polish wheat, for a description of which see Farmer & Gardener, vol. 2, page 164. Price \$5 a bushel. Orders must be forwarded before the end of July, and the wheat must be paid for on delivery.

All letters not containing orders ought to be post paid and directed to J. IRVIN HITCHCOCK, June 1 eow3t Philadelphia.

LARGE WHITE FLAT TURNIP SEED, &c.

Growth 1836.

THE subscriber has now the pleasure to offer for sale a superior lot of WHITE FLAT TURNIP seed, raised the present season by Robert Sinclair, Senr. from selected roots of the finest quality; the continued care for the last ten years, to preserve this article genuine, causes it to continue unrivalled.

It is recommended "to sow the seed about the 25th August, on new cleared land, or well tilled clay or loam. Quantity of seed required to crop one acre of ground, 1 to 1 1/2 lb.; if the latter quantity is sown it will be necessary to cross the plants with a harrow, after which follow with hoes, leaving the plants about 12 inches apart." For further information relative to preparation of seed, cultivation, &c., see R. Sinclair's remarks on Turnip

crops in the "Farmer and Gardener," issued on the 12th inst. Price \$1 per lb. and a liberal discount to those who purchase to sell again.

Also, early round Dutch Turnip Seed, Norfolk or large white, white Tankard, yellow Bullock, Ruta Baga, and Dale's new Hybrid Turnip Seeds, at 75 cents a \$2 per lb.

PICKLING CUCUMBER SEED of the best sorts, Endive, Brussels' Sprouts; Lettuce of various sorts, among which are brown Dutch; large white Cabbage and Cilicia—the three most esteemed sorts, YELLOW TURNIP, RADISH, and BLUE CURLED GREENS, or DELAWARE KALE, a superior sort, of fall sowing—both of the latter articles were raised by Robert Sinclair, Senr., with his usual care, from plants selected expressly for the purpose.

R. SINCLAIR, Jr.

July 5.

Light near Pratt street wharf.

FIELD & GARDEN SEEDS, &c.

WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and RARE FIELD seeds, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the Clairmont Seed Gardens, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of Cabbages, Lettuce, Peas, Beans, Cucumbers, &c., none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are 250 bushels Garden Peas of various sorts.

95 bushels Dwarf and Pole Beans.

2000 lbs. Cabbage Seeds. About 35 fine sorts, among which are the Scotch Early York, London Battersea, Flat Dutch, Globe Savoy, Early Harvest, &c.

150 lbs. Cucumber seed, about 12 sorts, among which are Keene's Long Green, Long Green Turkey, &c.

1800 lbs. Radish seeds—principally of Short top Scarlet, Yellow and Red Turnip.

300 lbs. Beet and Mangel wurzel seed.

50 lbs. Green Curled Borecole, or Scotch Kale, purple curled—blue curled, &c.

35 lbs. Cauliflower and Brocoli—best European sorts.

200 lbs. Carrot seed—for garden and field.

75 lbs. Lettuce seed—the curled Silecia, large white or Lazy, brown Dutch and Malta, are best sorts, the latter particularly fine for forcing.

270 lbs. Onion seed—several French and American sorts.

Also—Tart Rhubarb seed, Tomato, Egg plant, Squash, Black and Orange Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive, &c.

FIELD SEED.

60 bush. English and Italian Rye grass seed.

50 do Green Sward grass, for yards, &c.

1,200 lbs. Scarlet Trefoil or clover, Trifolium Incarnatum.

800 lbs. Lucerne or French clover.

50 bush. English and Poland oats.

250 lbs. Skinless or Huskless oats—new—great product.

150 bush. best English and American Early Potatoes.

100 lbs. Gama Grass seed—this grass bears cutting every 15 days, and of course the product is immense.

50 bush. White and Yellow Field corn.

ROBERT SINCLAIR, Jr. Seedsman,

Light st. near Pratt.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior in points. His price is \$300. jy 11 4t

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper. june 28

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 12.

BALTIMORE, MD. JULY 19, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the *west side of Light, near Pratt street*, at FIVE DOLLARS *per annum*, payable in *advance*. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JULY 19, 1836.

A friend writing us from Marietta, Pennsylvania, on the 30th June, says :

"Our *wheat* crops have been very much injured by the fly, so much so that some of the farmers in this neighborhood turned their stock into their fields, and others ploughed theirs up. The corn has also been very much injured with the cut-worm—many farmers have replanted the third time. Indeed I was at Lancaster yesterday, and saw some farrowing out their corn-fields in the new and planting. In my opinion it is entirely too late, for unless we should have a very favorable season they cannot expect any thing more than soft corn. Would it not have been more profitable for those farmers to have sown Buck-wheat, and after it to have put in a crop of wheat. By a rotation of that kind they would have gained at least one crop, as their corn will come so late in the fall as to prevent their putting in winter grain or any other crop."

CURE FOR THE GARGET IN COWS.

Cows after ceasing to be milked are very apt to suffer from an induration of the glands of the udder, and it not unfrequently happens that the same effect is produced by negligent milking. If a cow be not stripped at each time, she will ultimately go dry, and oftentimes the most serious consequences result to the animal from the effects of this neglect of the dairy-maid. Whenever the udder becomes inflamed and hardened from either of these causes, let a liniment be composed of camphor and blue ointment, and the udder be well embrocated therewith, and should a feverish condition of the animal ensue a dose of salts say 3 or 4 ounces at a time should be exhibited for 3 or 4 days in succession.

REARING OF HOGS.

There is, perhaps, no part of the business of the farmer so badly attended to in this country as

that of raising swine. It is quite a common thing for those, who are even largely engaged in agriculture, not to raise as many hogs as serve the purposes of their home consumption. The reasons which lead to the discreditable result may be traced in part to this following causes, viz:—1, neglect in the nurturing and feeding the animals,—and 2, indifference to the selection of a good breed. That every farmer should not only be able to raise hogs enough for his own bacon, but that he should have some to sell, are facts so susceptible of proof that they do not require argument to illustrate their tangibility, nor will any be so adventurous as to hazard their denial.

By the term "a good breed," we do not mean to say that *size* should preponderate in the choice; on the contrary, *that* should form but a secondary consideration, for there are other prerequisites which enter into the composition of "a good breed" of hogs, that are of infinitely more moment. *Size*, to be sure, where a farmer or planter has a large number of hands, is an object, but then to render that *object* desirable, it must be attainable at a small cost. Early maturity and a disposition to fatten are, therefore, traits of character in "a good breed" of hogs, which should never be overlooked. But it will appear obvious to any intelligent mind, that however much a hog may be predisposed to early maturity, or to take on fat, that that quality can alone be rendered available where the animal is well treated; for even a race of giants would be reduced to the size of dwarfs, if badly and scantily fed, as it is contrary to the principles of animal economy, that *magnitude* and *volume* can be given to the carcass of either man or beast, who does not daily receive a generous allowance of nutritive food. Half-feed a boy from infancy to manhood and what is the consequence? A meagre, ill-looking, undersized being is presented to our view, at the period of his majority—and, we would ask, can we expect a better fate to await the hog which shares a similar treatment? If we do, we most assuredly have mistaken the principles which obtain in the development of the animal functions, and we will as assuredly reap a rich harvest of chagrin and disappointment,—nature,—whether presented in the requirements of humanity, or those of the more

humble and pretensionless petition of the family of swine—whether the animal body belongs to the one or the other—must have its necessities supplied—its wants and the cravings of its appetites must be gratified. As well may we expect a luxuriant crop from a sterile field, without proper manuring, as to expect that hogs, however good the breed, will prove profitable, if not well and judiciously kept and fed. He, therefore, who would have a plentiful supply of hog-meat for his household, or for sale, must *begin right*—he must be liberal, just and enlightened; for true economy in the *raising* of them, as well as in that of any other stock, consists in consulting nature. To enable them to grow, a proper quantity of nutritive food must be provided. If the grower of hogs expects to have his meat-house filled without it, he will be egregiously mistaken. Hogs may be kept in a good thriving condition upon a well set clover field through spring and summer, and so may they also, during fruitful mast-years, in the woods; but in either case the proprietor will find his interest promoted by providing full portions of roots, as *potatoes*, *rutabaga*, *mangel-wurtzel*, and also pumpkins. The raising of these will require labor and expense; but the difference in the weight, and value of his animals, will more than repay him for both. If his hogs are destined to run in a clover field, it should be in one where there is a copious supply of water, and the animals should be ringed to prevent their rooting. We hold it, however, best that they should be penned and only occasionally permitted to range in the field, and that the roots which they may receive should be cooked either by steaming or boiling.

It has been affirmed that hogs do not thrive well if confined in a pen and soiled with clover: for ourself we are not a believer in this faith, unless where from neglect an abuse of this kind of feeding takes place. When the hog roams at large he has a chance of being his own physician—in the fields or woods on which he may graze, he finds numerous herbs and other substances which serve as medicaments to correct the enervating effects of his exclusive vegetable diet; and it is, therefore, but reasonable when he is cut off from these, that he should be furnished with substitutes to keep down the baleful effects

of the crudities of those substances which he receives into his stomach. All vegetable bodies which are edible are charged with more or less of acidities, the which, if permitted to remain uncorrected, will prey upon and vitiate the digestive organs. At this point then, nature must be assisted, and it may easily be done. Rotten wood, charcoal, or chalk, if placed in a convenient part of the pen will be readily partaken of by its tenants, and will preserve them in health. In addition to these it will be found serviceable to mix moderate portions of flower of sulphur and copperas occasionally with their messes.

If the hogs be confined in a pen altogether they cannot be kept with too much regard to their comfort and cleanliness, for although when permitted to range they luxuriate in mud and filth, under the former circumstances, their bedding should be frequently changed and their bodies in warm weather receive the benefit of periodical ablutions. With these precautions, and proper feed, to be given at regular intervals, there is no question but they will not only thrive well, but prove a profitable stock to any farmer who may try the experiment of thus raising them.

VIEW OF THE CROPS.

The subjoined highly important paper we copy from the Baltimore American. It presents no doubt a very fair view of the crops in the several grain growing States. We have but one remark to add to it, which is,—that our private advices from Western Pennsylvania authorise us in believing that the wheat crops are generally good there.

THE CROPS.

The unfavorable reports which have been made in the course of the present summer in reference to the Grain Crops have created apprehensions that the yield of the harvests would be so materially lessened as to cause a considerable advance in the prices of bread stuffs during the ensuing year. The season has been marked by complaints,—much more numerous and decided than those which we are accustomed annually to hear,—of the injury sustained by the wheat during the severity of the winter, and more recently by the ravages of the Hessian fly, and these complaints have not been confined to any particular quarter, but have issued from almost every grain growing section of the Middle States. As we have already intimated, reports of this character have for years past regularly attended the development of the growing crop, and in most cases the fears of those who have uttered them have, happily, not been realized. The frequency, universality and loudness of the complaints of the present season, however, evidently indicated that they were better founded than usual, and in order to ascertain as clearly as possible their true character, an enterprising and intelligent citizen took the trouble of addressing a copy of the annexed

Circular to each of the Postmasters in the various counties and towns of the grain growing States:

"BALTIMORE, June 13th, 1836.

SIR: Considering it a matter of much importance that correct information on the subject of the Grain Crops throughout the Country should be collected, and with a view to the dissemination of such information in case the fears of those who apprehend an unproductive yield in the approaching crop should be likely to be realized, I take the liberty of requesting that you will be pleased to inform me of the probable result in your immediate neighborhood, by filling up the blanks in the annexed half sheet, with such one of the following words, viz: *good, average, indifferent, bad, very bad*, as may be applicable to the case, adding any other matter that you may deem important, and returning it to me, under your frank, you will much oblige, &c."

The object of the Circular was to obtain correct information, and in seeking for it over so wide and extended a field, no better, more intelligent nor more disinterested sources could be referred to than the Postmasters. In very many instances prompt replies were returned, the whole of which have been kindly placed in our hands for the purpose of being given to the public. We have therefore proceeded to classify them according to the States to which they belong, and submit them to the reader without further remark:

NEW-YORK.

Counties.	Wheat.	Rye.	Oats.	Corn.
Schenectady,	average	average	average	promising
Onondaga,	4 an ave.	none	good	uncertain
Delaware, not a	wheat co.	good	good	indifferent
Broome,	indifferent	indifferent	good	indifferent
Greene,	average	average	average	indifferent
Seneca,	good	not good	promising	uncertain
Yates,	2-3 of a crop	average	good	promising
Orleans,	indifferent	short crop	good	uncertain
Lewis,	do	short	good	bad
Otsego,	average	half crop	good	half crop
Steuben,	average	average	good	promising
Westchester,	good	good	good	bad
Alleghany,	average	average	good	uncertain
Tioga,	not 1-2 crop	average	good	indifferent
Cayuga,	indifferent	average	good	good
Erie,	indifferent	none sown	average	bad
Columbia,	indifferent	average	very good	bad
Cattaraugus,	average	average	very good	not good
Essex,	not a wheat co.	promising	good	uncertain
Suffolk,	bad	average	very good	indifferent
Ulster,	bad	average	good	indifferent
Maysville,	average	not much grown	good	very bad

NEW-JERSEY.

Counties.	Wheat.	Rye.	Oats.	Corn.
Gloucester,	indifferent	very bad	good	indifferent
Bergen,	good	average	good	indifferent
Burlington,	indifferent	very bad	good	average

PENNSYLVANIA.

Counties.	Wheat.	Rye.	Oats.	Corn.
Pike	indifferent	average	good	bad
Cumberland	very bad	average	promising	promising
Westmoreland,	average	average	good	uncertain
Berks, less than half	crop	tolerable	promising	promising
Franklin,	very bad	average	very good	uncertain
Lycoming, 1-3 of an ave.		not good	promising	uncertain
Lancaster,	entirely destroyed by fly	half a crop	good	promising
Tioga,	average	average	good	promising
Wayne, not a wheat co.		bad	good	bad
Centre,	average	—	—	—
Huntingdon,	fair	—	—	—
Mifflin,	1-3 short	—	—	—
Northumberland,	indifferent	—	—	—

DELAWARE.

Counties.	Wheat.	Rye.	Oats.	Corn.
Kent,	bad	indifferent	very good	promising
Sussex,	none	fair	good	1-2 crop

MARYLAND.

Washington,	very bad	very bad	promising	promising
Dorchester,	very bad	bad	good	bad
Frederick,	{ not more than 1-4 of a crop,	{ 1-2 ave.	good	promising
Cecil,	less than 1-2	average	average	bad
Worcester,	very bad	indifferent	good	not good
St. Mary's,	fair	average	promising	uncertain
Caroline, not 1-2 the seed	very light	very good	very good	promising
Somerset,	very bad	average	very good	good

VIRGINIA.

Dinwiddie,	very bad	fair	very good	indifferent
Chest'd, about the seed,	small crop	{ best in the world }		uncer.
Powhattan,	very bad	none	very good	uncertain
Nansemond,	indifferent	little sown	very good	average

OHIO.

Fairfield,	1-2 crop	little sown	abundant	promising
Wayne,	good	little sown	good	uncertain
Ross,	indifferent	average	good	promising
Crawford, not a wheat co.	little sown	good	good	uncertain
Columbiano,	very good	good	very good	middling
Clinton,	average	good	very good	promising
Holmes,	2-3 of a crop	little sown	promising	uncertain
Seneca,	very good	very good	very good	bad

ILLINOIS.

Salem,	indifferent	average	good	generally late
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In various instances the Postmasters have accompanied their returns with remarks going more fully to explain the condition of the crops. Portions of these remarks are subjoined, in order that the reader may have all the light on the subject which they furnish.

NEW YORK.

Angelia, Alleghany Co.

Unless something more happens, there will be a tolerably fair crop in general.

Bedford (N. Y.) and vicinity.

West Chester Co.

Wheat, rye, and oats look very well, and a prospect of good crops.

Bath, Steuben Co.

In the counties east of us, large fields of wheat have been ploughed up and corn planted. The grain was smothered by the deep and long continued snow of last winter.

Martinsburg.

Wheat is winter-killed—there will be probably over half a crop.

Albion, Orleans Co.

The wheat crop in this county not considered more than two-thirds of an average. Much injured by deep snow in the winter.

Penn Yan.

This is probably one of the best districts for wheat in the Union, and I think the crops will be abundant, but more from the quantity of ground occupied. Wheat is, in this section, the main crop. [The yield has been put down at about two-thirds of a good crop.]

Auburn.

The wheat crop in this section of the State east of a line drawn north and south through Cayuga Lake, is not likely to produce more than two-thirds of the usual quantity. West of that line the wheat crop is much better, and will probably amount to an average.

Riverhead.

Wheat is very much winter-killed—probably there will not be over two-thirds of an average crop.

Binghampton, Broome Co.

Wheat and rye very much winter-killed. The crops will hardly be middling.

Syracuse, Onondaga Co.

Wheat will produce less than one fourth of last year's crop—hardly enough for bread and seed. Last year this county produced probably 500,000 bushels. This is the first year since 1828, that our wheat crop has failed. It being known early in the season, that the wheat was killed, our farmers turned their attention more vigorously towards coarse grains, of which, it is pretty safe to anticipate a large yield. Wheat, however, is our staple, but in all the counties east of Cayuga Lake, the harvest must be exceedingly small.

Essex Co.

Not much wheat raised in this county—what there is, looks well.

PENNSYLVANIA.

Wellsborough, Tioga Co.

The wheat and rye have been injured by the snow, but the weather has since been favorable for the winter grain, and we have a prospect of a fair average crop.

Williamsport, Lycoming Co.

I have never seen so general a failure in the wheat crops.

Reading, Berks Co.

The fly has perhaps never been in our county so destructive to the wheat as this season. The rye crops look tolerably well.

Greensburg, Westmoreland Co.

Wheat will be a fair common crop—about one-fourth less than last, which was abundant.

Carlisle, Cumberland Co.

The late and long continual rains have injured the crops in some parts of this county, but recently they have much revived in appearance.

Milford, Pike Co.

The prospect for the wheat is supposed to be hardly half a crop.

Lancaster.

The wheat crops have so completely failed, that many of the farmers who have disposed of their last year's crops, have purchased for the coming year. Farmers who raised last year from 1000 to 1500 bushels will this year scarcely have sufficient for seed.

Chambersburg, Franklin Co.

From the best information I can obtain, this valley from the Potomac to Philadelphia, will not give more than the seed and bread. Many of our farmers will not have their seed. We have a good deal of old wheat in this county.

DELAWARE.

Georgetown, Sussex Co.

There is very little wheat raised in this county, and the last winter destroyed the small crops that were sown. Corn is our staple, and the present prospect is that there will not be half a crop.

Dover, Kent Co.

Wheat and rye much injured by the winter and fly. Oats remarkably fine, and very good prospects for a large crop of corn.

MARYLAND.

Elkton, Cecil Co.

Many of our farmers will not have more than

their seed from their wheat fields, and some think they will not have even that.

Denton, Caroline Co.

Of wheat there is not enough to half sow the same ground.

Snowhill, Worcester Co.

The crops of wheat will not much more than yield the seed.

Cambridge, Dorchester Co.

Throughout this county there is not one farm that will yield a fair average crop of wheat; the late rains improved the appearance of the wheat crop very much, but the prevailing winds during the whole time, bruised the heads to such an extent that nearly one half of what was headed out will be destroyed by the blast. In our low lands the opinion prevails that the corn crop will be almost entirely lost; on the uplands the prospect is fair.

Hagerstown, Washington Co.

Our wheat crops were never so poor throughout the whole county. There will scarcely be enough raised for seed and bread. Rye is a shade better, but very indifferent. The oats and corn crops look well. Farmers are sowing buckwheat and millet in their wheat fields.

Frederick, Frederick Co.

Wheat is very bad—not more than one-fourth of an average. The rye crop in this immediate neighborhood will be less than half a crop. The appearance of the corn and oats has materially improved within the last ten days, and with a continuance of favorable weather, both will be very large, as many fields were ploughed up and planted in corn and oats.

Leonardtown, St. Mary's Co.

The crop of wheat is not an average of the last five or ten years, though more promising than last year.

VIRGINIA.

Suffolk, Nansemond Co.

Corn crops much injured by constant rains, but the last ten days of constant dry weather has improved them much.

Scottville.

Some farms will not make as much wheat as was sown.

Chesterfield Court House.

The wheat seeded in this county will not average more than two or three to one.

OHIO.

Tiffin, Seneca Co.

The general impression is that our crops of wheat, rye and corn will be more abundant than they ever have been heretofore.

Wilmington, Clinton Co.

The drought in April and May, and the constant rains which succeeded, it was feared would destroy the prospects of the farmer; but for the last two weeks the weather has been fine, and all sorts of grain look promising.

New Lisbon, Columbia Co.

We rarely have any but good crops in this region, and the present promises about as usual.

To render more full and complete the information which we desire to lay before our readers on this interesting subject, we annex paragraphs which have passed under our notice within the last ten days:

[From the Genessee (N. Y.) Farmer.]

WHEAT.—The season is now so far advanced that a tolerable conjecture may be formed as to the state of the wheat crop, and the effect produced upon it by the last winter. From our limited observation and from what we have been able to learn from various authentic sources, it appears that in what is called Western N. York, which is emphatically the wheat district of the state, the wheat has suffered to an extent quite equal to what was first apprehended. The Western counties extending to Wayne, and Seneca, may expect a medium crop—in Wayne, Seneca and Cayuga counties there is much wheat that promises well, but as a whole, it has been a good deal thinned, and many places entirely destroyed—while farther east, Onondaga, Oswego, Madison and Oneida counties, the wheat has suffered still more extensively. In the most favorable section of Onondaga, where the crops have rarely if ever failed, but few first rate pieces are to be seen: while in the less favorable sections hundreds of acres have been totally destroyed, and have been ploughed up for spring crops. The same remarks, but to a greater extent are applicable to Madison and Oneida.

But though the past winter has destroyed much of the wheat, if what remains produces an ordinary yield there need be no apprehension of a deficiency of bread stuffs. There is at the present moment a vast amount of wheat in the country of last year's harvest, greater perhaps than has often been known, and farmers are in every section industriously endeavoring, by an extended culture of the coarser and spring grain, to supply any apprehended deficiency that may arise from the defect of the winter on their wheat fields.

The Agricultural Report of the crops in the vicinity of the city of New York, for the month of June, says—

"In the early part of the month the rains continued unabated, and many were fearful the crops would be destroyed. At the close of the month, however, there was a change and fine weather commenced—before the month closed the hopes of the farmer were gladdened.

"Wheat and Rye appears well, stocks large with every appearance that the bolts will fill well, in wet spots 'tis thin, no fly or blight has injured it in the least; on the whole, there will be a fair crop.

"Corn looks the worst of any thing else, and is very backward, and may be injured."

In Pennsylvania, west of the mountains, the accounts are decidedly favorable. A late Pittsburg Advocate says—

"We perceive that our eastern brethren are loud and lugubrious in their complaints of the crops, particularly the wheat. The crops in this section of country have not failed or come short of their usual exuberance. On the contrary, our farmers tell us that they are promising beyond any former season, and bid fair richly to reward their toils."

The Wilkesbarre Farmer says—

"In our last we spoke of the unfavorable appearance of the crops in various parts. We have since had an opportunity to view the fields in this neighborhood, and are happy in being able

to say they are the most promising we have seen in any quarter."

The recent convention at Harrisburg brought together citizens from various parts of Pennsylvania. The result of the inquiries addressed to them on the subject of the crops of grain was, that "the fears which had been entertained a few weeks since of a considerable failure will not be realized."

In Maryland, from all the information we can gain on the subject, we have no doubt there will be a very material falling off in the wheat crops—not only in the Western counties, but throughout the Eastern Shore.

In Ohio there is the promise of an abundant crop of all kinds of grain. The Tuscarawas Advocate states that the crops in that region never presented a better appearance for a bountiful harvest. The Cincinnati Gazette of the 6th instant says that the harvest had commenced in the Miami country, and that the wheat is considered below an average.

Respecting the crops in Virginia, we have the following account in the Farmers' Register, published at Fredericksburg. This account is up to 27th June, and it is likely that the favorable weather since experienced may have improved the crops. The statements here given are confirmed by numerous letters published in the Register:

The season and state of crops.—From all the accounts before us, public and private, it is inferred that the wheat crop throughout Virginia, will fall short of half of an average crop—and that the whole wheat crop of the United States will be not much better than that of Virginia alone. We subjoin, in extracts from private letters, many of the facts that have reached us: but none of these, except the one from Halifax, Va., even refer to the latest and worst calamities, caused by the inundation of most of the rich and extensive river bottoms of Virginia and North Carolina.—The great source of injury to the wheat, and which was anticipated as far back as last October, and expected then to be unusually destructive, was the Hessian fly. In addition to this, and to other minor evils, the very wet season latterly has done great damage, either by filling the soil with water, or entirely overflowing its surface. In the latter part of May, and first half of June, there were 21 days in succession, on which more or less rain fell—and some of these rains came in floods: and even since the close of this uninterrupted series, there has been an unusual quantity of rain. On high land, the usual estimates of crops expected, vary from one fourth to three fourths of an average. In some few cases, they are worse and better than these ordinary extremes varying from nothing worth reaping, to nearly a fair product. Of the latter cases, very few have been heard of—and those not very lately. From the newspapers, we learn that in Buckingham and the nearest adjacent counties, the wheat was tolerably fair, and near Wheeling still better: if so, these are the only parts of Virginia as much favored, of which we have heard. On our own farm, we cannot estimate the crop of wheat at more than the fourth of what the land could produce: and where the damage from the fly was the least, and the general growth the best, there the damage was greatest from *scab*, or empty or

dead parts of heads. The quality of the grain will be very bad.

But the rich bottom lands on our rivers have suffered most. They have all been covered by freshets, and to very unusual depths. The Roanoke bottom lands have suffered most. The wheat there is almost entirely destroyed, as well as other crops, and the soil itself, in many parts, has been carried off by the floods, so that the damage to the land is even of more amount than the entire loss of the year's crops.

Two more days (the 25th and 26th) have passed since the foregoing remarks were written, and on both rain has fallen profusely and heavily: the consequent increase of damage to the wheat will be necessarily great. Where ready for the scythe, it must be much beaten down and tangled by the heavy rain of last night; and where still green, there is danger of the rust coming to destroy much of the quantity and value of the small product previously expected.

June 27th.

[From the Poughkeepsie Casket.]
WHEAT.

Wheat, (*Triticum*), is in more universal use as food for man, and is adapted to more varieties of climate and temperature than any other grain. We can trace its use as far back as Abraham, and it is not at all improbable that it was the seed sown by Abel, and was the peculiar object of his care as a husbandman. In scripture it is known by the name of corn, which many readers have mistaken for the maize or Indian corn now in use, but which was not known to the agriculturists of the Old World until the discovery of America, it being an indigenous plant of our continent. There are seven different kinds of wheat, that are *radically*, so while there are some differences or peculiarities in each variety. The first which we shall notice is the

SUMMER WHEAT. (*Triticum aestivum*.)

This grain is supposed to be a native of Siberia, in the land of the Betchkirs. It cannot endure the cold like winter wheat, and its whole appearance is that of a weak plant; the stem is delicate, the ears slender and provided with long beards. The advantage which the farmer derives from spring wheat is the surety he has of its being uninjured by the effects of frost, which often produce an indifferent crop. The sowing may be delayed as late as the month of May, and the crop is sometimes fit for the sickle almost as quick as the autumnal. This kind of grain is somewhat less nutritious than the winter wheat, and consequently the former is preferred by the baker. The next in order is the

WINTER OR LAMMAS WHEAT. (*Triticum Hibernum*.)

This grain is far more vigorous than the former; the ear is thick and almost destitute of beards; but is more subject to blight. There are several varieties of this kind, probably produced by different modes of culture. The colors are usually divided into white and red, the former is more productive and the flour of a better quality. There is another kind called the

DUCK BILL OR CONICAL WHEAT. (*Triticum Turgidum*.)

Agriculturists pay but little attention to this kind of wheat as it is of a very inferior quality.

EGYPTIAN OR MANY SPIKED WHEAT. (*Triticum Compositum*.)

This variety is also called the Corn of Abundance, and is chiefly cultivated in Egypt and adjacent countries, and in Italy. This is the kind of grain which Christ and his disciples gathered on the Sabbath day. It grows luxuriously in Palestine, and will bear great degrees of heat and drought without injury. The peculiarity of this plant consists in that formation of the ear, which consists of several spikelets; it has long beards.

POLISH WHEAT. (*Triticum polonicum*.)

It has never been cultivated to any extent, and is reared principally in the hot-houses of horticultural gardens. The next variety is

SPELT WHEAT. (*Triticum spelta*.)

Some have imagined this to have been the *Triticum* of the Romans and the Zea of the Greeks, although the latter term has been applied to maize. This wheat is peculiarly adapted to warm climates, and flourishes abundantly at the Cape of Good Hope and Australia. It grows also in Spain, France, Germany and Switzerland. It is generally sown in the spring; grows strongly with a stalk nearly solid. Bread made from the flour is of a dry quality. The last variety is the

ONE SEEDED WHEAT. (*Triticum monoccocum*.)

The growth of this plant is more diminutive than any of the wheat kind, the ear and bearer being quite small and the spike containing only one single row of grains. This wheat is used principally in Switzerland.

Our limits will not permit us to follow the subject in detail; we will conclude with a few desultory remarks upon its culture. It is an almost universal custom to sow wheat, rye, oats, barley, &c. *broad-cast*, but recent experience has shown that the productiveness of the grain is greatly increased by *drilling* or planting the grain in rows about fifty inches apart. The most important part of this department of husbandry is that of ploughing, which Cato the Roman and all succeeding observers laid down as requiring the greatest care that it be done well. By having the soil well turned up, and pulverized, mixing the vegetable decompositions that lie upon the surface with the earth into which the lower fibres of the root will spread, greatly facilitates the process of germination. It is wondrous to witness the progress of vegetation from the seed to the ear—The grain-bearing plants possess a power of multiplication superior to the rest of the vegetable kingdom, and were it not so, the casualties to which they are subject during their earlier stages would often prove fatal to the hopes of the farmer. One or two circumstances may be mentioned where such casualties are of infinite service in the production of cereal grains. An insect called the *musca pumilionis*, or wheat fly, is accustomed to deposit its eggs in the very core of the *plemule* or primary shoot of wheat, so that it is completely destroyed.

But the multiplying properties of the plant soon repairs the injury, and that which seemed like a misfortune is a god-send to the farmer.—"This destruction occurring in the spring of the year, when the vegetable powers of the plant is in the greatest activity, an effect is produced somewhat analogous to that of heading down a fruit tree; shoots immediately spring up from

the nodes, (knots) the plant becomes more firmly rooted, and produces probably a dozen stems or ears where, but for the temporary mischief, it might have sent forth only one."

BEET-ROOT SUGAR.

ROXBURY, JUNE 15, 1836.

*The Hon. Thos. L. Winthrop,
President of the Massachusetts Ag-
ricultural Society:* }

Sir:—Mr. Isnard put into my hands a few days since, a memoir "On Indigenous Sugar and the Actual Situation of that Industry in France, &c." It was published in the early part of this year in Paris, by Mr. De Dombasle. That gentleman was for many years concerned in a large establishment, for the manufacture of Beet-Sugar, but he is now the Superintendent of the national Experimental Farm, which is a highly valuable appendage to the Royal Agricultural Society. He has long been well known, as one of the ablest writers, and most intelligent experimentalists, on rural affairs, of modern times; being equally as conspicuous for his practical illustrations, as for his great scientific attainments, in whatever relates to the advancement of the useful arts, and the tillage of his country.

I have made several extracts from his very interesting and instructive work, with the view of presenting, in a succinct manner, the progress which has been made, and is now making in Europe, in this important branch of industry.

It appears that the manufacture of sugar, from the beet, was first attempted in Silesia, by Mr. Archard, in the early part of the present century, but was soon abandoned. In 1810, successful experiments were made in France, by Mr. Andre and Mr. Isnard, which having been made known to the Emperor Napoleon, under the auspices of the radiant and mighty genius of Chaptal, he issued an imperial decree, for encouraging the manufacture, on a large scale, and establishments were commenced at the village of Pont-a-Mousson in Lorraine, in 1811 and 1812. It is not a little remarkable that the first was erected under the superintendence of Mr. Isnard, and is still in full and successful operation, after a suspension of a year or two.

Mr. De Dombasle observes, "This industry, although so powerfully favored by the imperial government, seemed to expire with it; and it was not until 1820, that but very few people believed the manufacture of sugar, from the beet, was any thing more than a ridiculous attempt to achieve what was impracticable, and had been induced by the long and rigorous continental blockade, which had enhanced the price of sugar to 90 cents per pound. Still the sparks of this industry were preserved in France; it has maintained its position and flourished in the shade under the ægis of sufficiently moderate duties, which were imposed on foreign sugar, for the mere purpose of revenue. So that, in truth, it may be said, that it has prospered, not only without the aid of the government, but in spite of it; for nothing is more remarkable than the disdainful manner in which it was treated, until 1830, by the national administration.—It appeared that the Bourbons could not forget the stigma of its imperial origin. At last the government has been compelled to notice its exist-

ence; for it has become so important, from the great results which have been produced, that it can no longer be disregarded. From the ten to twenty millions of pounds of sugar, which were brought into the market, some five or six years since, the quantity which will be made this year will amount to 60,000,000 pounds."

"To judge properly of the importance of an industry, which has for its end the creation of a product, which has hitherto been furnished by our colonies,—to appreciate the degree of encouragement, which it merits, on the part of those public men, whose province it is, to watch over the prosperity of their country, and to hasten the increase of national wealth, it is necessary to glance at the situation in which France is now placed, with respect to her colonies. The present generation are the observers of a most grave and important spectacle. It is that presented by the fall of the gigantic colonial edifice, which the Europeans had reared in the new world. The English colonies of North America commenced the march of this grand transatlantic revolution, and France, herself, by aiding them in their separation from the mother country, laid the axe at the base of the colonial structure; for it was easy to foresee, that as soon as a single one of the American nations, broke the fragile bonds, which placed a whole people under the dependence of a government, situated in another hemisphere, all the moral power of the colonial system was annihilated; and the INDEPENDENCE of all the other colonies would soon be the inevitable consequence."

"The enfranchisement of all the people on the American continent, has now been consummated. Can it be seriously believed, that a few islands, situated in the vicinity of that continent, will long remain dependant upon the people of Europe?—In the slave colonies, a very evident cause has tended to retain the people as dependent upon the parent country. There no revolution was possible in favor of the whites, and if any occurred, it must be like that of St. Domingo. The colonists, therefore, dare not attempt any enfranchisement, in favor of themselves, in the West-Indies, for their only reliance against a servile revolt and war, was on the parent country. But now the parent country has commenced the abolition of slavery in those colonies, and it is very certain, that the emancipation of the blacks, strikes a fatal blow to the cultivation of sugar,* and will ultimately extinguish it. This is a truth, which no one can doubt; and it is highly probable, that if no accidental cause strips us of our West-India colonies, we shall soon be obliged to forego their products of sugar, for it cannot be reasonably believed, that France can long maintain slavery in her colonies, when the blacks are emancipated in the neighboring English islands.

"It is under these circumstances, that Providence has offered us the means of replacing the richest product of our colonies, by a vegetable of our own country, and which, at the same time, introduces into our agriculture, a plant, which favors its progress in an eminent degree, as it forms

* All, or nearly all, the sugar establishments in St Domingo, were destroyed by the blacks, and none have been re-built.

a most productive element for fattening cattle and enriching the land."

Mr. De Dombasle is of opinion, that in the British government, there was a profound principle of political economy concealed, under the apparent spirit of philanthropy, which sanctioned the abolition of slavery in the West-Indies. That it had in view the ultimate monopoly of the sugar trade of the world, as her East-India colonies could supply the entire demand of Europe, at least; and her policy has ever been to favor her vast oriental possessions, at the expense and ultimate destruction of the West-India planters.

Mr. Isnard has submitted to my examination, some preliminary observations and calculations, on the establishment of a beet-root sugar manufactory in this State. He has given the details of the expense and estimated nett income on a given capital, by which it appears that from 25 to 75 per cent. may be realized. I hope some of our enterprising capitalists will be induced to undertake the experiment, for that it must ultimately become one of our great branches of industry, scarcely admits of a doubt.

I do not know any subject so worthy of the consideration of the Massachusetts Agricultural Society, as this new culture. It will render our climate independent of the tropics, and introduce a great and valuable staple for our farmers, which has been much required, to elevate them to the level of other more naturally favored portions of the Union. We have no distinctive crop, to which our land-owners can direct their attention as a constant and certain source of profit. Even Indian corn is not always to be relied upon, and our soil is not generally congenial to wheat. We are too far North to enter into the lucrative culture of tobacco and cotton, and are compelled to confine our labors to the rearing of an infinite variety of small articles, or to grazing. Butter, cheese, pork and beef are our chief products, which are raised at a vast expense, for our winters require such immense fields to furnish hay for the stock during that long-protracted and rigorous season, that the farmer is precluded from acquiring a fortune, which he so deservedly merits, from his arduous and patient industry, and for which all other classes of society are emulously striving, and which they can, more certainly attain. By labor without end, it is true, the farmer can live comfortably, but seldom is it, that he reaches a more happy condition. This is to be lamented. In other states the owners of land are in the high road to affluence, and why should not a mighty effort be made to ameliorate the condition of the virtuous, hardy and intelligent husbandmen of New England.

The quantity of flour and cereal grains—as wheat, corn, rye, barley and oats, annually imported from the middle, southern and western states, is enormous, and is a sufficient commentary on our soil and climate, for the culture even of bread stuff, and we export, of agricultural products, but little. This discouraging aspect of our agriculture has induced hundreds of thousands of our active and vigorous young men, to emigrate to other sections of the United States, where the soil and climate are less adverse to the hopes of the farmer. But if the culture of the sugar beet is successfully introduced, the ultimate benefits

which will result may be anticipated, from what has been accomplished in France, within the brief period of fifteen years. I confidently believe, that the culture of silk and the sugar beet will effect such a salutary change in the condition of the farmers, that they will present as much prosperity, independence of circumstances, and affluence, as the cultivators of the earth, in any portion of the globe.

Germany, Prussia and Russia, have recently entered, with zeal, into this favored branch of rural economy, and even England, where there has, hitherto, been such an indifference to the subject, if not amounting to contempt, I perceive, by the very last arrival from London, has at last awakened from her stupor, and a company was about being organized, under the name of the United Kingdom Beet Root Sugar Association, with a capital of 1,000,000 of dollars.

Mr. Isnard, having first aided in introducing the manufacture of sugar from the beet into France, and having kept himself constantly informed of the various improvements which have been made since, may well be confided in, as an able pioneer, for this industry, in the United States.

In Philadelphia, efforts are being made, by a company, to commence the culture of the beet, and to manufacture sugar in Pennsylvania. An agent has been sent to France to collect information, and from the measures which are in train there is every prospect of a favorable result.

From your long and meritorious services, as an officer of the Massachusetts Agricultural Society, and your known patriotic disposition to advance the best interests of your country, by all the possible means within your power, I am fully persuaded, that this very interesting subject will receive from you and your highly respectable and public-spirited associates, all that consideration, countenance and encouragement, which it appears so pre-eminently to merit.

With sentiments of the highest respect,
Your most obedient servant,
H. A. S. DEARBORN.

[From the Southern Agriculturist.]

ON THE WORKING AND THINNING OF COTTON.

My Dear Sir,—Your repeated solicitations to send you something for your journal, have induced me to overcome my indisposition to write, and accordingly to prepare you something in the shape of an article. However, before proceeding any further, I must remind you of the fact, that this is the first time that "Old Homespun," has ventured to appear in the public prints. If, therefore, the clothing of his ideas be not of the most fashionable texture, I am confident, that you and the public will excuse the appearance he makes, when he tells you that he does so, merely that his young friends may benefit by his publication of those facts, which long experience has taught him to be correct.

I propose, therefore, to give my notions upon the *working and thinning of cotton*.

The cotton crops are generally up about the first of May; and the corn crops have been planted. At this season, then, although I seldom have any grass in my fields, I commence hoeing. This I do, to stir and loosen the earth, in order

that the roots of the young plants may expand. I consider this hoeing of incalculable advantage, but great care should be taken as to the *mode of doing it*.

In my first working, I use the hoe, principally on the sides of the bed, inclining to the top of it. Alongside of each hill of cotton, a chop or two is made, on the top of the bed, to loosen the earth about the plants. In doing this, the worker must carefully observe not to draw the dirt away, as he removes the hoe from the chop it has made, else he will leave the plant exposed. Another thing which he should be made to observe, is, *not to cut down the bed in such a manner as to form a ridge in the alleys*. If he do not observe this rule most scrupulously, he will fill up the alleys in such a manner as to prevent the rain from freely passing off when it falls. The non-observance of this rule has ruined many a crop of cotton.

The *second working* is generally to haul up the earth to the plant. This is done, by standing in one alley, and reaching over the bed with a hoe, and drawing up to the plant, the earth, which, in the first working he had loosened in the opposite alley. The object of hauling up is twofold—first, to kill and to cover the grass; and second, in gathering the earth around the plant, to give it moisture, and consequently a start in growth. In the second working I thin down the plants to *four, five or six*, in proportion to the strength of growth, &c.

The *third working* is done precisely as the second, and in this working, I thin the plants down to *two or three* in each hill, as circumstances may require.

In the *fourth working*, which takes place about the middle of June, I thin down the plants to two in a hill, which at the rate of 60 or 65 hills on a task row (105 feet) leaves us from 120 to 130 plants to each row.

These workings having been gone through, the consideration next arises—"are the beds sufficiently large; or are they likely to be washed down by the late rains?" If either is the case, I haul up the bed—if otherwise, I hoe, taking care, at the same time, to keep up the original size of the bed, by hoeing up to the top of the same in an oblique direction, from the alleys. This operation is, by some planters, called "*side hauling*."

The crop being thinned down as described, my most careful and sensible hands are now selected to thin. These are sent over the crop, and whenever a growth of six or seven feet is expected, they are instructed to leave but one plant in each hill. Where the growth is expected to be from only four to five feet, they are instructed to leave from ninety to 100 plants in the task row; and the poorest land from 120 to 130.

After the fourth working, the cotton need not be worked, except where the plant is low, and wants hauling up to give it growth. The plant when well grown, is apt to be bruised and injured by being worked—the tops and arms of the plant are likely to be broken; and in many other respects it receives more injury than service.

I have thus, circumstantially described the

working and thinning of cotton, because, Mr. Editor, many years experience has taught me that it is the most important consideration in the whole process of cotton planting. Not to understand it correctly, is to the young planter a loss of one half of his yearly interests.

In concluding this article, I will recapitulate what I have said in the form of a few maxims for the young planter.

1st Working, keep your fields at an early period clear of grass—loosen the earth about the plant—thin your cotton moderately, and keep your alleys clean and open.

2d Working—haul the earth up to the plant, thin them down to *four or five*, and otherwise observe the same rules as in the first.

3d and 4th Workings—continue to haul and thin down the plants to the number required; and never at any one period suffer water to remain upon your field. If you have too much water in the first growth of your cotton, it will render it backward, by rendering it too cold, and if you suffer it to remain upon the land when the plants begin to blossom and pool you may invariably calculate on losing one-half of your fruit.

I remain, Mr. Editor, your friend and well wisher.
OLD HOMESPUN.

[From the New England Farmer.]

GYPSUM OR PLASTER OF PARIS.

When pure it does not effervesce with acids; it is insipid in taste and free from smell; but there are other sorts which vary in purity, and hence the analysis of many chemists differ in their accounts of its properties. There is, however, a simple mode of trying its quality, which consists in putting a quantity of it, pulverised into a dry pot over the fire; and when heated it gives out a sulphurous smell. If the ebullition, or bubbling which then takes place is considerable, the plaster is good; if not, it is considered indifferent: and if it remains motionless, like sand, it is thought to be worth hardly any thing. Another test of its goodness is obtained by putting the powder alone into an iron pot over the fire, and when it bubbles, like boiling water, it will admit of a straw being thrust to the bottom without resistance. It is stated by Mr. Smith of Tunstall, that having a field of red clover which had been manured with gypsum, and had produced a fine crop, he carefully repeated the trial on two square perches—one with powdered gypsum, the other without any: the result of which experiment on the crops, when mown for hay and afterwards cut for seed, was as follows:—

Hay crop.	Seed.	Straw.
Gypsum 60cwt. 3qrs. 21lbs.	22cwt. 0qrs. 12lbs.	No manure 20cwt. 0qrs. 20lbs.
5cwt. 0qrs. 0lbs.		

He says cattle show a marked predilection for clover which has been gypsumed, that, after once having it, they have been observed to walk deliberately to it the whole length of a field without tasting a part that was grown without it, though a tolerably good crop; and in his opinion not only increases the vigor and the verdure of the plant, but also perceptibly increases the richness of its juices.

The soils to which it is most congenial, are the light, dry, sandy, and gravelly, to heavy loams

strong clays, and to wet land it seems to yield no benefit unless the former happens to have been well limed.

The crops to which it is most appropriate, are the artificial grasses, though it has been also known materially to improve the sward of moss bound pasture. It never appears to produce better effects than when it has been laid on red clover, already so far grown as that the leaves nearly cover the soil; for there seems no doubt, that it acts with the greatest force when it adheres to them, and the longer it remains upon them the better. It should therefore be applied as a top dressing. In order to spread it, with the intention of covering the leaves, a calm day should be chosen; and it should be spread in by the hand, or rather through a sieve, either early in the morning in which the dew has fallen heavily, or late at night, or after a gentle shower, that thus the moisture may occasion it to stick to them.

With respect to the permanency of gypsum as a manure for artificial grasses, it has been stated in those cases in which its beneficial effects have been proved, that sainfoin dressed with it did not materially decline until the fourth crop, and on sowing again it recovered, and became as productive as before, yielding on a thin soil about a load and a half; whilst another patch dressed partly with soot, became so weak as to be scarcely worth mowing. Its durability when applied to lucerne, has been found to produce very fine crops for five years. As an instance, both of its effect and the prejudice which many people entertain against it as a manure, an anecdote has been related of a gentleman, who, having recommended its use, ordered his servant to spread a small quantity of it secretly upon an adjoining piece of sainfoin, belonging to an old farmer, who vehemently decried it. The crop proved surprisingly abundant on that spot to which the gypsum had been applied, but upon discovering its occasion, the old man instead of profiting by the circumstance, grew peevish, and wondered why his neighbor should have taken the liberty of spreading this new-fangled manure over his sainfoin, which, for aught he knew, might do more harm than good. The laugh, however, going against him, he determined to get rid of it by breaking up the sainfoin and sowing peas, when, behold! they also rose in judgment against him, so evidently on the gypsomed part, that he was constrained, though reluctantly, to acknowledge that "it seemed good stuff;" yet he was never known afterwards to lay a bushel of it on his farm.—*Bost. Cour.*

DURHAM STOCK FOR SALE.

THE Editor of the Farmer and Gardener has for sale, at his residence 2 miles from Baltimore, on the Philadelphia turnpike road, the following full bred improved Short-horn Durhams.

Bull *B. Illiant*, a large sized animal of the Improved Durham short-horn breed. He is white with red spots, and has a thin and most delicate skin of the colour of cream, evidently evincing his superiority for the dairy; he has sired several animals of reputation; one of his calves the last spring weighed 84 1-2 pounds, when taken from its dam. He is perfectly docile. His price is \$300. He was got in England, and calved in Frederick county, Md. on the 12th May, 1829. His dam was Matchless, got by Favorite, (purchased at the sale of the late R. Colling, a celebrated breeder) son of Favorite, dam by H. Allison's gray bull, sire Orlando, that died on

the passage from Liverpool, out of Rosina, from Yorkshire, which bull gained the highest prize premium of 10 sovereigns at a cattle show in Manchester, England.

Until disposed of, this fine bull will stand at the residence of the editor of this paper at \$5 per cow, and as an inducement to those who may have cows needing his services, the editor will obligate himself to give \$15 for any female calf which may be borne to Brilliant, when 6 week sold, whose dam is a deep milker.

Also, a white and red Heifer, a pure and full bred improved short horn, of beautiful proportions and fine growth. She was calved 9th June, 1834, dam Blossom. Blossom out of Matchless, a full bred improved short-horn cow, got by Favorite, son of R. Collings Favorite, whose dam was by H. Allison's gray bull, sire Orlando, a celebrated improved short-horn bull, which gained the highest prize premium of 10 sovereigns at the Manchester cattle show.

This is a most promising animal, and is now in calf to that fine bull Brilliant, and is the grand daughter of that great animal Emperor, raised by the hon. Charles A. Barnitz, of York, Pa. which weighed in September, 1825, when thin in flesh, 3710 lbs.!

HE HAS ALSO FOR SALE,

That celebrated and beautiful full bred improved short-horn Durham Cow, raised by that distinguished and sagacious breeder, John Barney, Esq. which was so admired at the fair last fall. She is of a fashionable roan color, of silky hide and buttery skin, and as a proof of her goodness as a milker, the editor would remark, that she gives, when fresh with proper treatment, 16 quarts of milk per day.

Besides these fine animals, he has the following on commission for sale, viz.

That thorough bred improved short-horn Durham bull *Superior*—he is a beautiful roan, was bred by Stephen Williams, Esquire, of Massachusetts, and was calved July, 1831.

Superior was got by Frederick, dam Yellow Rose by Young Denton, (963)

g. d. Arabella (imported) by North Star (460)

g. g. d. Aurora, by Comet (155)

g. g. g. d. do by Henry

g. g. g. d. by Danby, (949)

Frederick was got by Wye Comet

Dam Tulip by Young Denton (963)

g. d. Tube Rose 2d (imported)

g. g. d. Tube Rose

g. g. g. Tulip Comet (157)

g. g. g. d. Cherry by Ladrone.

Arabella and Young Denton were sent out by Samuel Williams, the American banker in London, to his brother in Massachusetts to improve the cattle of this country, and, says our informant, never did a man hit more luckily; for the stock from young Denton have not only proved of fine size and form, but deep milkers.

Superior has two crosses per Denton, and is a very square, compact built animal, straight on the back and legs, broad on the loin and hips, chest deep and broad, short and small in the leg, rather heavy in the head and neck. So far he has proved a sure and good stock getter. \$50 have been refused for his calves by native cows. His price deliverable in Baltimore is \$300.

Also, a Hampshire Down Buck, 7 years old—price \$100—and

A South Down Buck, 1 year old this spring—price \$50.

—All letters upon the subject of the purchase of either of these animals, must be post paid. jy 19

DEVON STOCK.

THE Editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. jy 19

OXEN WANTED.

THE Editor of the Farmer & Gardener, Baltimore, Md. wishes to purchase 4 pair of Eastern Oxen. It is ne-

cessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective oxen, price deliverable at Baltimore, and time when they can be delivered.

—Editors to the eastward with whom we exchange will confer a favor which will be reciprocated by giving this a few insertions. jy 19

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100 lbs.	7 50	8 75
CORN, yellow,	bushel.	80	81
White,	"	75	—
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 00	9 50
Do. do. baker's,	"	—	—
Do. do. Superfine,	"	8 00	—
Superior wh. st. in good de'd	"	7 75	8 00
" " wagon price,	"	7 50	7 75
City Mills, extra,	"	—	8 25
Do.	"	—	8 00
Susquehanna,	"	7 75	8 00
Rye,	"	5 25	—
Kiln-dried Meal, in hhds.	hhd.	—	19 50
do. in bbls.	bbl.	—	4 37
GRASS SEEDS, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 75	3 25
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100 lb.	7 75	8 25
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	42	44
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	—	3 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	100	—
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	4 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	1 75
Red,	"	1 60	1 70
WHISKEY, 1st pf. in bbls. }	gallon.	38	39
" " in hds. }	"	35	—
" " wagon price,	"	31	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	—
To Wheeling,	"	1 50	—
Wool, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	24 26
Common & one fourth Meri.	"	36 40	22 24
Pulled,	"	38 40	22 24

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	16	17
Shoulders,.... do.....	"	12	—
Middlings,.... do.....	"	13	—
Assorted, country,.....	"	10	11
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	20	20
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	50 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 75	1 81
CHOP RYE,.....	"	1 75	1 81
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna, barrel.	10 00	—	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 37	—
Mackerel, No. 1, \$8.....—No. 3	"	—	5 75
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....par	Farmers Bank of Virginia.....
Branch at Baltimore,....do	Bank of Virginia,.....do
Other Branches,.....do	Branch at Fredericksburg do
	MARYLAND.
Banks in Baltimore,....par	Petersburg,.....do
Hagerstown,....do	Norfolk,.....do
Frederick,.....do	Winchester,.....do
Westminster,.....do	Lynchburg,.....do
Farmers' Bank of Mary'd, do	Danville,.....do
Do. payable at Easton,....do	Bank of the Valley,....do
Salisbury,.... 5 per ct. dis.	Branch at Romney,.... 1
Cumberland,.....do	Do. Charlestown,....do
Millington,.....do	Do. Leesburg,....do
	DISTRICT.
Washington,.....do	Wheeling Banks,.... 3 1/4
Georgetown, } Banks, 1/2	Ohio Banks, generally 3/4
Alexandria, }	New Jersey Banks gen. 1 1/2
	PENNSYLVANIA.
Philadelphia,.....do	New York State,.... 2 1/2
Chambersburg,.....do	Massachusetts,.... 2 1/2
Gottysburg,.....do	Connecticut,.... 2 1/2
Pittsburg,.....do	New Hampshire,.... 2 1/2
York,.....do	Maine,.....do
Other Pennsylvania Bks. 1 1/2	Rhode Island,.... 2 1/2
Delaware [under \$5].... 3/4	North Carolina,.... 3 1/2
Do. [over 5].... 1 1/2	South Carolina,.... 3 1/2
Michigan Banks,.....do	Georgia,.....do
Canadian do,.....do	New Orleans,..... 6

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

July 5 2t

Light near Pratt st. wharf.

CONTENTS OF THIS NUMBER.

Crops in Pennsylvania—Cure for garget in cows—rearing of Hogs—View of the crops in New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, Ohio, and Illinois—Wheat, kinds of—Beet-root sugar—on the working and thinning of Cotton—Gypsum or Plaster of Paris—Advertisements—Prices Current.

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and R. Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.
Liberal discounts made to the trade.

AGRICULTURAL AGENCY in Philadelphia
(No. 5, SOUTH FIFTH-STREET.)

THE Subscriber continues to purchase and sell on commission, Cattle, Sheep, Hogs, Asses, and other domestic animals of choice breeds or qualities, suitable for breeders.

He has now on register for sale, the following animals, viz:

VERY VALUABLE SWINE.

Ore boar and three sows, of the genuine Norfolk thin rined breed, one year old and upwards.

Also, five sows and four boars of the Philadelphia white breed—some nine and the rest twelve months old. Most of the sows of both kinds are supposed to be in pig.

Price twelve and a half cents per pound.

FIRST RATE JACKS AND JENNETS.

Two Jacks and three Jennets, of the largest size and best blood, of good ages, and remarkable fine breeders.—The Jacks are near 14 hands high, and the Jennets 13 hands and upwards. Two of the Jennets are in foal by an imported Maltese Jack, full 14 hands high. Besides these, which are such animals as can seldom be obtained, the subscriber can at all times procure to order good Jacks and Jennets at fair prices.

CHOICE CATTLE.

Several bulls, cows and heifers, of the Improved Durham Short Horn breed, with indisputable and excellent pedigrees, are for sale at prices much below those recently obtained in this vicinity for animals in no respect better.

MERINO AND BAKEWELL SHEEP.

The subscriber has made ample arrangements to meet this summer the numerous demands upon him for choice breeders of the above kinds.

All orders sent him early, say previous to the first of August next, will be filled promptly from the best flocks in this region, which are believed to be equal to any in the Union.

SHORT WHEAT.

The subscriber is sole agent for the sale of this year's crop of this most extraordinary variety of Polish wheat, for a description of which see Farmer & Gardener, vol. 2, page 164. Price \$5 a bushel. Orders must be forwarded before the end of July, and the wheat must be paid for on delivery.

All letters not containing orders ought to be post paid and directed to
J. IRVIN HITCHCOCK,
June 1 eow3t Philadelphia.

LARGE WHITE FLAT TURNIP SEED, &c.

GROWTH 1836.

THE subscriber has now the pleasure to offer for sale a superior lot of WHITE FLAT TURNIP seed, raised the present season by Robert Sinclair, Senr. from selected roots of the finest quality; the continued care for the last ten years, to preserve this article genuine, causes it to continue unrivalled.

It is recommended "to sow the seed about the 25th August, on new cleared land, or well tilled clay or loam. Quantity of seed required to crop one acre of ground, 1 to 1 1/2 lb.; if the latter quantity is sown it will be necessary to cross the plants with a harrow, after which follow with hoes, leaving the plants about 12 inches apart." For further information relative to preparation of seed, cultivation, &c., see R. Sinclair's remarks on Turnip

crops in the "Farmer and Gardener," issued on the 12th inst. Price \$1 per lb. and a liberal discount to those who purchase to sell again.

Also, early round Dutch Turnip Seed, Norfolk or large white, white Tankard, yellow Bullock, Ruta Baga, and Dale's new Hybrid Turnip Seeds, at 75 cents a \$2 per lb.

PICKLING CUCUMBER SEED of the best sorts, Endive, Brussels' Sprouts; Lettuce of various sorts, among which are brown Dutch; large white Cabbage and Cilicia—the three most esteemed sorts, YELLOW TURNIP, RADISH, and BLUE CURLED GREENS, or DELAWARE KALF, a superior sort, of fall sowing—both of the latter articles were raised by Robert Sinclair, Senr., with his usual care, from plants selected expressly for the purpose.

R. SINCLAIR, Jr.

July 5.

Light near Pratt street wharf.

FIELD & GARDEN SEEDS, &c.

WARRANTED GROWTH, 1835.

THE subscriber has just received and is now opening a large and superior assortment of GARDEN and RARE FIELDSEEDS, growth 1835.

All those seeds which can be raised to advantage in this country, are saved by careful seed raisers at the Clairmont Seed Gardens, near this city. Seeds which are found necessary to import are principally from the south of Europe, where they become so well matured, that their vitality is preserved much longer than those obtained from the humid climate of England.

Of the endless variety of Cabbages, Lettuce, Peas, Beans, Cucumbers, &c., none are retained but such as are known to be truly excellent.

The most prominent seeds received, and in store, are 250 bushels Garden Peas of various sorts.

95 bushels Dwarf and Pole Beans.

2000 lbs. Cabbage Seeds. About 35 fine sorts, among which are the Scotch Early York, London Battersea, Flat Dutch, Globe Savoy, Early Harvest, &c.

150 lbs. Cucumber seed, about 12 sorts, among which are Keene's Long Green, Long Green Turkey, &c.

1800 lbs. Radish seeds—principally of Short top Scarlet, Yellow and Red Turnip.

300 lbs. Beet and Mangel wurzel seed.

50 lbs. Green Curled Borecole, or Scotch Kale, purple curled—blue curled, &c.

35 lbs. Cauliflower and Brocoli—best European sorts.

200 lbs. Carrot seed—for garden and field.

75 lbs. Lettuce seed—the curled Silecia, large white or Lazy, brown Dutch and Malta, are best sorts, the latter particularly fine for forcing.

270 lbs. Onion seed—several French and American sorts.

Also—Tart Rhubarb seed, Tomato, Egg plant, Squash, Black and Orange Salsafy, Spinach, Peppers, Ockra, Flag Leek, Cress, Celery, Endive, &c.

FIELD SEED.

60 bush. English and Italian Rye grass seed.

50 do Green Sward grass, for yards, &c.

1,200 lbs. Scarlet Trefoil or clover, Trifolium incarnatum.

800 lbs. Lucerne or French clover.

50 bush. English and Poland oats.

250 lbs. Skinless or Huskless oats—new—great product.

150 bush. best English and American Early Potatoes.

100 lbs. Gama Grass seed—this grass bears cutting every 15 days, and of course the product is immense.

50 bush. White and Yellow Field corn.

ROBERT SINCLAIR, Jr. Seedsman,

Light st. near Pratt.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior in points. His price is \$300.
jy 11 4t

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper.
june 28

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 13.

BALTIMORE, MD. JULY 26, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JULY 26, 1836.

THE CROPS—SUMMARY NOTICES.

Cotton.—The *Mobile Advertiser* says that so great have been the rains and the freshets, that not more than half crops can be raised this season.

The State Rights' Banner published at Jackson, Mississippi, states that the late storms and heavy rains have injured the crops of cotton, particularly in new grounds, where the fields are literally covered with fallen timber.

Grain.—The Richmond Enquirer says that the wheat crop generally turns out even worse than was expected. There is straw enough; but the heads are withered, and yield comparatively few grains. We are assured that some of the farmers will not make seed wheat—others have ploughed up their fields without reaping—many will not make half a crop; others, not a third or fourth. The ravages from various causes, the fly, the wet, smut, freshet, &c., &c., are more or less felt by almost all. The complaint extends to both sides of the mountains in Virginia. But the corn looks well, and the oats are very fine.

The Baltimore American of Friday last publishes a letter from Gloucester Court House, Va. dated July 9, which states that the crop of wheat is so very indifferent that doubts are entertained whether a single bushel of the first quality can be obtained in the whole county. The average will not be more than equal to the fourth of a crop, and that fourth the poorest stuff that can be well imagined: that many of the farmers do not consider the crop as worth the trouble of harvesting:—and that the corn crop is very unpromising.

The Alexandria Gazette has the following notice of the crops in the counties of Virginia mentioned therein:

We learn from a gentleman who has recently visited the counties of Fairfax, Prince Wil-

liam, Fauquier, and Loudoun, that the wheat crop in the three first named counties will be from half to two thirds of an average one, Loudoun not so good. In Frederick county the crop is represented as very indifferent, and in Jefferson, Berkely, and many other counties beyond the Blue Ridge, it is said to be almost a total failure. The rye crop is generally very indifferent. Of the corn it is too early to judge, as much yet depends upon the weather—at present, the corn, though short, looks in a healthy and flourishing state. With seasonable weather and the absence of early frost it may partially remunerate the farmers for their loss in the wheat and rye crops. The oat crop is an abundant one.—

We conversed on Tuesday last with a gentleman of Martinsburg, who assured us that in many fields in that section of country the seed would not be gathered.

THE HESSIAN FLY.—A cotemporary states, that the Hessian Fly, of whose ravages so much complaint is made, is so called from the Hessians, by whom, as it first appeared in this country about the time the Hessian troops came over during the revolutionary war, it was generally supposed by the farmers, that the insect was brought here in their blankets and baggage.

We always heard it stated that this insect came in the straw which was brought for the accommodation of the horses of the officers of those troops,—and this appears to us the most natural version. To us it does not look likely that such insects could be introduced by means of blankets or baggage, unless the latter was in part composed of straw for bedding or matting. But be the mode of introduction what it may, it is most certain, that this minute insect has proved a much greater calamity to this country than the Hessians themselves, for while the latter only served for a time to annoy our fathers in their struggle for liberty, the former has remained a perpetual curse upon the industry of our husbandmen.

A GOOD HINT WELL GIVEN.

We commend the subjoined article to the particular attention of our agricultural readers. Its good sense will strike every one capable of judging.

Communicated to the Baltimore Patriot.

Mr. EDITOR—As there cannot remain a doubt of a considerable failure in the wheat and rye crops, a prudent forecast will suggest to the far-

mers the propriety of providing such substitutes as the season still allows them an opportunity to grow. Among such substitutes, permit me to suggest that Buckwheat holds a prominent place, both as food for man and for cattle.

This grain may be grown on Barley, Wheat or Rye stubble, with a single ploughing, if the lands be good, and even on poor lands there is no grain which will produce so good a crop from a light dressing of manure. Almost every kind of manure will do: even long unrotted litter from the stable or cow-yard. Oat stubble will not do for this crop, as the shattered oats spring up so vigorously as to smother the Buckwheat.

There exists among farmers, a general, though very erroneous, prejudice against Buckwheat as an exhausting crop. It is true that in the ordinary way of cultivating the crop the land is exhausted; but not by the growth of the grain.—From the season of the year in which ground is ploughed and prepared for this grain, and the lateness of the season in which it is gathered, the land is left entirely bare of both weeds and grass, and the stubble is so thin as to afford it no protection from the rains of the winter and spring, which incessantly filtering through the surface and running off, greatly impoverishes the soil: but if the land on which Buckwheat has grown be ploughed deeply after the grain is taken off so as to detain the water, it will be found to be rather meliorated than injured, and will be in fine preparation for any Spring crop. This result I have ascertained by the infallible test of experiment.

Among the valuable properties of Buckwheat, there is one by which the consumption of Indian Corn may be greatly lessened. It is known to the farmer, that nothing makes so heavy a demand on his corn-crib as his hog-pen. Now there is nothing on which a hog will fatten so fast as on boiled Buckwheat, though he must be fed on Corn a couple of weeks before he is fit for Bacon.

By giving the above an early insertion in your very valuable paper, you may perhaps call the attention of agriculturists to other substitutes besides Buckwheat. B.

VIRGINIA SEWING SILK.

We saw a few days since a skein of sewing silk in the possession of Mr. Jacob Janney, who lives near Winchester, Va. The worms which fabricated the cocoons from which it was made were fed by Mr. Janney, and the ladies of his family, and the silk was reeled and spun on a common reel, and an ordinary woollen wheel; the worms were fed on the red mulberry. Without indulging in a feeling of unmerited praise, we can in perfect sincerity and truth aver, that we

have seldom seen a more beautiful sample of sewing silk, and we think Mr. Janney may well be proud of a production so eminently creditable to the skill of his excellent lady and daughters—who, without any lights save what they received from reading, wrought a fabric of the most delicate texture, which at the present value would bring \$10½ per pound. The wild mulberry abounds on Mr. Janney's estate, and he, as well as many of his neighbors, have been encouraged by the triumphant success that has crowned his late efforts to enter largely into the culture. We rejoice at this news, as it will tend much to add to the wealth and employment of the population of the old dominion.

He showed us a drawing of one of the leaves of the mulberry from which he fed, and we were astonished to find it so large, it being 13½ by 12 inches.

A few such successful experiments as Mr. Janney's has proved, will inspire a feeling in the state which gave birth to Washington, which will place her people in that position in the republic which their patriotism and talents so justly entitle them to occupy.

PEACH TREES CULTIVATED IN POTS.

The American Gardeners' Magazine contains a long and interesting article on the subject of the management of *Peach trees in Pots*. It is from the pen of the conductors of that excellent work, and although the necessity of such culture of this most luscious fruit does not exist with us in this part of our country, yet there are other parts in which many of the suggestions might prove useful.

The method which these gentlemen have adopted is to raise the plants from the seed. They plant the peach stones in November, in a bed in rows about 3 or 4 inches apart, and cover them an inch or more in depth. In the month of May the plants make their appearance. About the 1st of June they take them up and pot them in good sandy loam and leaf mould. The plants are placed in a warm shady situation for a week or two until well rooted, when they are removed into a sunny aspect, and the pots plunged to the rims in the soil. Throughout the summer they give them supplies of liquid manure, and the pots are kept free from weeds.

In the month of August, if treated well, they will be large enough for and should be budded. The lower leaves should be stripped off to the height of 8 or 10 inches, a few days before inoculation. Buds should then be procured, of the best kinds, suitable for pot culture, and immedi-

ately inserted, choosing a dull cloudy day for the operation and performing it very skilfully, as the stocks are so small as the buds will not unite quite as freely as on those two years old. After the buds are inserted, the plants may remain in the same situation until severe frosts occur in the fall, when the pots should be taken up to prevent their being broken and placed in the cellar. If any roots run through the holes they should be cut off. Two or three waterings will be sufficient through the winter. In the spring of the year the pots should be placed in a hot-bed or green-house to give the plants a start; head off the shoots three or four inches above the buds; when these have made a growth of a few inches, they should each be tied to small sticks to prevent their being injured by the wind or other accidents. Water the plants freely. The plants should now be repotted in good rich mould, in large pots, 12 or more inches wide at the top and about the same in depth. On the approach of winter they should again be placed in the cellar.

In pruning the trees in pots some care is requisite, all the superfluous branches in the culture of the tree must be cut off, and all the strong shoots must be headed off. Always prune with an eye to the succeeding year's wood and crop, and not let the trees grow up tall and straggling. They should never be permitted to assume a greater height than five feet.

The trees should have plenty of water, sun and air. The conductors say they never have tasted finer peaches than those they have raised in pots, and think it would be a delicious treat for a gentleman to place one of those trees bending beneath its fruit on his dinner table for his company to pick from. The peach tree thus raised is said to be less subject to disease than when raised in the open air.

THE FARMER AND EARL FITZWILLIAM.

A farmer called on Earl Fitzwilliam to represent that his crop of wheat had been seriously injured in a field adjoining a certain wood, where his hounds had, during the winter, frequently met to hunt. He stated that the young wheat had been so cut up and destroyed in some parts he could not hope for any produce. "Well, my friend," said his lordship, "I am aware that we have frequently met in that field, and that we have done considerable injury, and if you can procure an estimate of the loss you have sustained, I will repay you." The farmer replied, that anticipating his lordship's consideration of kindness, he had requested a friend to assist him in estimating the damage, and they thought that, as the crop was quite destroyed, 50*l.* would not more than repay him. The Earl immediately gave him the money.

As the harvest, however, approached, the wheat grew, and in those parts of the field that were most trampled, the corn was the strongest and most luxuriant. The farmer went again to his lordship, and being introduced, said, "I am come, my lord, respecting the field of wheat adjoining such a wood." His lordship instantly recollected the circumstance—"Well, my friend, did I not allow you sufficient to remunerate you for your loss?" "Yes, my lord, I have found that I have sustained no loss at all, for where the horses had most cut up the land the crop is most promising, and I have therefore brought the 50*l.* back again." "Ah!" exclaimed the venerable Earl, "that is what I like; this is what it ought to be between man and man." He then entered into conversation with the farmer, asking him some questions about his family—how many children he had, &c. His lordship then went into another room, and returning, presented the farmer a check for 100*l.* "Take care of this, and when your eldest son is of age, present it to him, and tell him the occasion that produced it." We know not which most to admire, the benevolence or wisdom displayed by this illustrious man; for while doing a noble act of generosity, he was handing down a lesson of integrity to another generation.—*English paper.*

Remarks by the Editor of the Farmer and Gardener.

The moral taught by the above simple narration of an anecdote, is worth millions to the world, if those who inhabit it would only profit by it. It demonstrates with a clearness, beauty, and force, which challenges admiration and wins respect in every quarter where integrity of the highest order is appreciated, and where benevolence springing from an unadulterated heart can find a response. How commendable the example of the young farmer! how glorious that of the venerable Earl! Such acts are, indeed, praiseworthy beyond all comparison—they are as the salts of the earth, and should teach poor grovelling humanity, even against its own consent, to pursue an upright and honorable course; for it places the expediency of such actions upon the all-subduing ground of interest. By an adage, as venerable as venerated, we are taught, that "honesty is the best policy"—and how happily does the present anecdote illustrate its truth, and exemplify the justness of its philosophy. "Take care of this, and when your eldest son is of age present it to him, and tell him the occasion that produced it"—said the Earl, as he handed the young farmer a check for a hundred pounds. Could advice be more appropriate? "Tell him the occasion that produced it!"—how solemn and how pleasing was the duty imposed upon the father of that son!—our life on it, his eyes glistened with the tear of gratitude and joy—gratitude to the thrice noble and generous donor, and joy that he had been made the herald of news so full of the emanations

of the most exalted and estimable attributes of human nature, clad in its best and holiest vestments! We would rather be able to present to our eldest boy, a hundred pound note under similar circumstances, on his arriving at his majority, than to have it in our power on our demise to leave him thousands unaccompanied by a deed so savory—so hallowed by its purity, and so dignified by all that is lovely in the sight of God or man.

Prolific grain of Rye.—Mr. Israel Myers of Frederick county, Maryland, we observe by the Fredericktown Herald, has left with the enlightened editor of that paper, a huge bundle of rye straw, the produce of a single grain, containing 120 heads, and producing 5025 grains. This is truly a most astonishing product, and we join most heartily in the wish of the editor of the Herald, that our friends and neighbors, (and in so saying we embrace the whole race of American Agriculturists) had a similar yield for every seed of wheat and rye sown.

There is a species of lichen, growing on trees, of a greenish color, which the country people gather, under the name of moss, which dyes a permanent orange color on wool. It may be gathered by bushels from the oak trees, hanging in bunches from the limbs. Lie or potash, we believe, is used to fix the color. The acrid herb called smart weed, or biting knot grass, is also said to dye a brilliant and unfading yellow. If these dyes are unknown to chemists, we think they ought not to be; and the scientific should not undervalue an important principle, which their science may render five times more valuable, merely because they owe the discovery of it to the ignorant.

[The shrub called Ivey, which so abounds in our woods, with a proper mordant, will die a beautiful black.]—*Ed. Farmer and Gardener.*

VALUABLE TIMBER.

About five years since, a man named Smith, purchased a number of trees of heavy Locust, in this county, for which he paid as high as 70 and 80 dollars each. The butts were squared and sent to Philadelphia, where they were used in ship building. The price appears extraordinary; but had many of those choice trees been cut up into posts, they would have produced to their owners, nearly, if not quite as much as were paid for them by Mr. Smith. In proof of the correctness of this opinion, we give the following fact:

On the farm of Mrs. Evans, near Marietta, in this county, a yellow Locust was felled last season, from which 140 posts were made, one hundred and ten of which were first-rate, hewed and morticed, and sold for 50 cents each, and the remaining 30, cullings, fit for board fence, and worth 25 cents each, yielding to Mrs. Evans sixty-two dollars and fifty cents.

The yellow Locust is of quick growth, sprouts

from the stump, and is natural to the soil of our river bottoms. A grove of this valuable timber, covering 3 or 4 acres, will keep a farm of 200 acres in fences forever; and when the trees are at maturity, say 25 years old, will produce more clear cash than 2 years produce of the whole farm.—*Lancaster Farmer.*

[It has always been a matter of surprise to us that farmers who own bottom lands do not cultivate the yellow locust as a crop—in 12 or 15 years they would produce several hundred dollars to the acre.]—*Ed. Farmer and Gardener.*

We insert in our journal to-day, the advertisement of the administrator of the late Dr. Hosack, offering the fine estate of the deceased called *Hyde Park*, situate in Dutchess county, New York, for sale, and we would respectfully call the attention of southern gentlemen of wealth to it. It is situate on the right bank of the Hudson river, about a mile and a half from the thriving village of the same name, and seven from Poughkeepsie, and consists of about 750 acres of the very best land in that rich and fertile county. The improvements are of the most spacious and magnificent character. The mansion is of massive dimensions, and such as reflect credit upon the genius and taste of its late opulent and venerated owner. It is well and most appropriately observed by the advertiser, that "the natural beauties of Hyde Park are unsurpassed;" for surely the human eye cannot desire, nor the imagination conceive a more grand and imposing spectacle than is presented by the stately piles of dwellings, stabling, barns, outhouses and offices which burst upon your view as you ascend the stone bound river. We do not risk anything in saying that there is no estate in the union combining so much of the beautiful with the useful. The stables and barns are quite in keeping with the grandeur of the mansion—its green house, gardens and lawn, all testify to the exquisite taste and elegant refinement of its late owner; while its mills, unimproved water power, and landing, shew at once that it is destined to be the site of a flourishing manufacturing town, and that its physical advantages, at no distant day, will be worth more to its purchaser than what he may now give for the whole estate.

To a southern gentleman of ample fortune, we cannot conceive a more desirable summer residence. Less than a day's sail from New York, or Albany, with daily access to both places, commanding a full and picturesque view of the Hudson as far as the eye can discern, and within a few hours distance from West Point, Newberg, and those other places rendered classic by revolutionary events, it comprises within itself advan-

tages which should, and doubtless will, render it an object of first importance to gentlemen of fortune and elegant leisure, as well as to speculators.

THE WORMS.—We understand by a gentleman from the neighborhood of Ridgeville that the caterpillar has again made its appearance in that quarter in even greater numbers than last year. The most serious fears are entertained that a total destruction of the orchards and timber will be the result. The last year, has left many fine farms entirely destitute of timber—killing the trees as effectually as though they had been girdled with an axe. We fear that further intelligence will show them to have spread over the country extensively. It is said that they exist in an alarming profusion in the vicinity of Hampton, and between that place and Lebanon to within a few miles of town. They are said to travel in one direction, and to be so numerous as literally to cover every thing in the line of their march, disrobing the forest and leaving it as leafless as if in the depths of winter.—*Lebanon Star.*

We observe on the forest and fruit trees of this neighborhood a numberless host of these destructive worms. We have not, however, yet heard of any serious injury having followed their appearance.—*Springfield Pioneer.*

SHORT HORNED CATTLE.

[A writer in the N. Y. Farmer, after pointing out the decided advantage accruing to the farmer in fattening cattle for market, whose flesh becomes *marbled* in fattening, or in common parlance "a streak of fat and a streak of lean," sums up the good qualities of the short-horned breed in the following manner:]

The fattening quality, and the disposition to become quickly fat, and at an early age, is an indispensable requisite to the agriculturist; upon this qualification his loss or gain, in a great measure, depends; and this so essential requisite, is innate.

The short-horn breed have been brought to a degree of perfection, surpassing in beauty, utility and profit, all other cattle of the present day—yielding a large supply of milk, feeding to greater weight, having a propensity to become fat at an early age, affording fine grained meat, beautifully intermixed with fat throughout, having thin hides, carrying their greatest weight in the hind quarters, and the choice pieces when cut up, yielding a just proportion of tallow, having small bones, with fine clean heads and light necks, void of that great coarse gullet and dewlap generally the property of heavy cattle; affording a less proportion of coarse meat of little value when exposed for sale on the butcher's stall, and less offal, than any other breed.

TO SAVE CUCUMBERS FROM BUGS.

Sprinkle on the vines at evening (after cooled) tea grounds, as they are commonly left by families after use. This done so often as 2 or 3 times in a week, will not only prevent injuries from bugs, but strengthens and invigorates the vines and causes them to become exceedingly fruitful.

[From the Maine Farmer.]

ROT IN SHEEP.

Wool is already one of the staple productions of Maine, and our farmers generally find it one of the most profitable articles for the market that they have. It may be indeed called their Spring Harvest, as it comes at this season of the year, and at a time when their other productions are either sold or used up more or less. It therefore becomes necessary to pay the best attention to our flocks, and as much as possible prevent all diseases among them. One of the most insidious and fatal diseases which destroy the flocks of Maine is thought to be the Rot. It may be considered as the same to the Sheep as the consumption (Phthisis) is to man. It however does not always fasten itself upon the lungs of the sheep but upon some other organ. It is thought to be produced by many causes both remote and near or immediate. One of the most sure and prevalent causes of the remote kind, may be considered exposure to heats and chills. Another may come under the head of keep. It is not impossible, but even in many instances certain, the foundation of this disease is laid at shearing time, although it does not show itself until winter, and perhaps does not finally destroy until the next winter or spring. Almost any cause is then assigned for the death of the sheep but the right one. A Merino, it is well known, has a very close fleece. It is also well known that our spring months and especially our first summer month (June) is variable as it regards weather. One day it is fine, warm and pleasant, and the next cold and stormy. Now a sheep, which at best cannot be considered a very tough animal, if stripped suddenly of its warm jacket and thrust out into the weather which is changing from warm to cold and from dry to wet as often as ours—and allowed to remain without a shelter, must invariably suffer in its health. Nothing short of an iron constitution could prevent much trouble and disease from this cause. Another fruitful source of disease is short pasturage. Our winters it is well known, are long and oftentimes very severe. There is a great change from green succulent herbage to dry and oftentimes perhaps ill cured hay. If therefore the sheep do not come to the barn in good order it is pretty sure that they cannot fatten much upon ordinary winter food. Disease is the consequence, and before spring we hear the story that the sheep are dying off. And the mischief is laid to the "terrible winter," when in fact it should be laid to the short commons of the previous summer; or to the freezing and thawing of shearing time. It is therefore incumbent upon the woolgrower to look well to his flocks in summer and autumn if he would prevent loss in the succeeding winter. See that your sheep have enough to eat—that they are thriving and laying in a store of fat and health for winter, and you will undoubtedly have less of more disagreeable work to do in January or March.

We propose from time to time to give what information we can find in different authors upon this subject, which with the care and observation of the woolgrower, we hope will have a tendency to prevent in a great degree this as well as some other diseases in our flocks. The last

winter was a severe one to the woolgrower. Sheep generally come to the barn in poor order. The winter was uncommonly hard and forage scarce. Hence many sheep died—many with worms in the head—many more with the rot. We have been informed by a wool dealer that the fleeces are not generally so heavy this year as they were last by nearly twenty-five per cent. the consequence, undoubtedly, of a scarcity of keep, in concurrence with the poor or the lean state in which the animal came into winter quarters.

The following is from Clater's Cattle Doctor. He makes quite a flourish with his learned words but he has some good ideas. We think however that it is much better to prevent than attempt a cure after the disease is seated. The expense would soon balance the worth of the patient.

This disorder has been more fatal to sheep than any other; and, having at different times carried off great numbers, it has occupied the attention of the learned, who have favored the public with a variety of opinions; the symptoms, however, of this fatal disease, cannot be more accurately stated than in the following description of Dr. Harrison.

"When in warm, sultry and rainy weather, sheep that are grazing on low and moist lands feed rapidly, and some of them die suddenly, there is reason to fear that they have contracted the rot. This suspicion will be further increased, if a few weeks afterwards, the sheep begin to shrink and become flaccid in their loins. By pressure about the hips at this time, a crackling is sometimes perceptible. Now, or soon afterwards, the countenance looks pale, and upon parting the fleece, the skin is found to have exchanged its vermilion tint for a pale red; and the wool is easily separated from the pelt.

"As the disorder advances, the skin becomes dappled with yellow or black spots. About this time the eyes lose their lustre, and become white and pearly, from the red vessels of the tunica adnata, and eye-lids being contracted, or entirely obliterated. To this succeeds debility and emaciation, which increase continually till the sheep die; or else ascites, and perhaps general dropsy supervenes before the fatal termination.

"These symptoms are rendered more severe by an obstinate purging, which comes on at an uncertain period of the disorder. In the progress of the complaint, sheep become what the graziers call *choked*, that is, affected with a swelling under the chin; which proceeds from a fluid contained in the cellular membrane under the throat.

"In five or six days after contracting the rot, the thin edge of the small lobe of the liver becomes of transparent white, or bluish color, and this spreads along the upper and lower sides, according to the severity of the complaint. Sometimes it does not extend more than an inch from the margin. In severe cases, the whole peritoneum investing the liver is diseased; and then it commonly assumes an opaque color, interspersed with dark red lines or patches.

"The upper part of the liver is sometimes speckled like the body of a toad, to which it is

said to bear a striking resemblance; round the *ductus communis choledochus* and hepatic vessels jelly-like matter is deposited, which varies according to the severity of the attack, from a table spoon full, or less, to five or six times that quantity. Upon boiling, the liver loses its firmness, and separates into small pieces in the water, or remains soft and flaccid. Several graziers and butchers, with whom I have conversed at different times, having observed that sheep are much disposed to feed during three or four weeks after being tainted, omit no opportunity of producing it, to increase their profit.

"When the first stage is over, flukes begin to appear in the *pori biliarii*, the *ductus communis choledochus*, and in the gall-bladder. At first, the quantity of these creatures is small; but, as the disease advances, they increase; and, before death are often very numerous.

"In the last part of the complaint, they are sometimes to be found in the stomach, as well as the intestines and liver. This like the visceral disorders of the human body, may terminate in resolution—effusion—suppuration or schirrus.

"First, the complaint is said to terminate in resolution, when the inflammatory action goes off, without destroying the state and texture of the parts. However, I am strongly inclined to believe, that every considerable inflammation in the human body, and in other animals, although it ends in resolution, leaves behind it some remains, which may be discovered by an experienced anatomist.

"When the vessels are thrown into inflammatory action for a few days only, effusion commonly takes place, and the coats become thicker, and assume a buffy color. These changes in the sanguinary system, often continue through life, and lay the foundation of many chronic and incurable diseases. Sheep that recover from the rot exhibit very different appearances after death, according to the severity of the attack; but the taint is seldom or never entirely removed. I once was desired to look at the liver of an old ewe that died fat, and contained 14 pounds of suet in her body. The back part of the small lobe was dappled with whitish spots; the coats of the *ductus communis* and *pori biliarii* were considerably thickened and more solid than usual. In color they resembled the human aorta in old people, and were full of flakes: in other respects the liver appeared to be sound and natural. The butcher asserted that this was occasioned by a slight taint of long standing, which had not been considerable enough to disorder the economy, or impair the health of the animal sufficiently to prevent its feeding.

"Secondly, when sheep die suddenly in the first stage of the disorder, an effusion of serum, or of wheyish colored fluid, may be commonly discovered in the cavity of the abdomen, and then the peritoneum surrounding the liver is generally covered with a membrane or coat of coagulable lymph. This form of the rot has been frequently confounded with the *Resp.* or *Red water*, though it differs from the latter disorder in the color of the effused liquid, in being much less disposed to putrefaction, and in several other particulars.

"Thirdly, Abscesses in the liver exhibit another

er termination of the malady. They are seldom considerable enough to kill immediately; but in consequence of the absorption of the purulent matter from them the sheep frequently waste away, and die hectic or dropsical. When the collections are small, sheep will recover sufficiently to bear lambs for three or four seasons, and afterwards become tolerable mutton.

"Fourthly, The most common termination is in *schirri*, or what the shepherds call knots in the liver, I have seen the whole substance of this important viscus so full of small roundish lumps, or schirrous bodies, that it was difficult to find any sound part in it. The first attack is unfortunately so very insidious that the disorder is scarcely observable, before the animal begins to waste and lose in flesh. In this advanced state it is said to labor under the rot, or *pourriture*, from overlooking the commencement of the disorder.

[From the New York Farmer.]

THE HARLEIAN DAIRY.

BY R. C.

Milk, next to bread, is undoubtedly one of the most general and important articles of human diet. None is more universally salutary, and none more nutritious. To children it is next to indispensable; aged persons who are accustomed to it, find it extremely conducive to their comfort; and return to its use with even a stronger relish than they had for it in childhood. It is an important condiment with much of our food; and it is capable of being used in almost countless variety of delicious and nutritious forms.

Of the various animals whose milk is employed for human food, the cow, both in respect to quality and quantity, is most generally preferred. Goats', asses', and mares' milk are used; but for convenience, nutritiousness, and quantity, the cow is above all others to be chosen; and as far as food is concerned, may be considered among the greatest blessings which Divine Providence has bestowed upon mankind. As matter of diet, there is nothing which in proportion to its weight contains so much nutriment; and as a beverage, to a simple and unadulterated taste none can be more grateful. In the country, where it can be had pure and in abundance, it ought to constitute the great article of food for children and young persons; and the miserable and pernicious and perfectly innutritious substitutes of tea and coffee ought to be kept entirely out of their reach. In cities, however, pure milk is almost as difficult to be procured as pure water. In New York city, for example, the milk is first deteriorated, if we may be allowed to state, in the cow's udder;—that is, where cows are fed upon distillers' swill with scarcely any meal, and with barley hay enough to form a cud, the milk produced is of a very inferior quality; besides, with a large proportion of the milk-dealers, though not with all, it undergoes the ruleable and established dilution of one quart of water to four of milk; in addition to this, if it goes into the hands of the grocers, as in general they are too modest and humane to sell any thing like strong drink, it commonly undergoes another application from the town-pump.

Indeed, we state upon the best information, that there are grocers in the city, who without any aid from the cow, or at least the slightest possible, have offered the milk-men, when the supplies of the milk-men for their customers fall short, to furnish them from their own (the grocers) resources, what they may need to make their supply sufficient: that is, they literally manufacture the milk, as we sometimes say, "out of the whole cloth." The process, we understand, is this: to take some Indian meal of the white gourd-seed variety, and pass some scalding water through it; and this water dashed with a slight touch of milk, as Bloomfield calls it, "three times skimmed sky-blue," can be afforded at five cents per quart; and at this rate is actually vended to the poor wretches, who want their cent or their two cents' worth for their tea and coffee. Now whether this be or be not a real yankee trick we shall not venture to surmise, but the ingenuity of its performance belongs to the veritable city of Manhattan. It is however all of a piece with many of the London tricks, which London cream is readily manufactured out of flour or magnesia, and milk to a consistence to suit the most fastidious. The adulterations of human food, however, where it is susceptible of being adulterated to a profit, are most obvious and enormous, and it would be quite fortunate if all of them were as innocent as the above.

The adulterations of milk, the price obtained for it, and the frauds practised in its disposal, induced William Harley of Glasgow, an active and enterprising citizen, some few years since, to form a milk establishment of considerable extent in the neighborhood of that city, for the supply of the market with this article in a pure and cleanly condition; and indeed, as far as depended on human skill, of the very best quality. This dairy attracted very extraordinary attention from its novel and convenient arrangements, and the admirable manner in which the whole business was conducted. It was visited as a matter of great curiosity by vast numbers of people, including many of the nobility and several of the princes and sovereigns of Europe; and as far as concerned the object of furnishing an article of the best quality, and in the best condition, and with scarcely the possibility of adulteration until it left the hands of the vender, its purposes were admirably accomplished. It was not we believe equally profitable to the enterprising proprietor; the establishment was evidently conducted on too expensive a scale to be expected to yield large returns. Harley has given a detailed account of the establishment, and of his own experience in the dairy business. It is a book containing much valuable information; and I have thought it would be both interesting and useful to the readers of the N. Y. Farmer to have an account of it.

I shall not undertake a particular description of the building. The largest amount of cows kept at any one time was two hundred and sixty. The largest building contained stalls for one hundred cows. There was an appendage which deserves particular attention. At the end of the house was a large tank or reservoir as a depository for the cows' urine; it was fifty feet long, six feet wide, and six feet deep. The surface

of the tank was on a level with the bottom of the cellar; it was covered with flat brick work, arched, leaving a space in the centre of the arch four feet square, for taking out the sediment. This aperture was surrounded by a wall sufficiently high to prevent the dung from getting into the tank. This was an admirable provision for saving a substance of extraordinary value to the farmer, where he can avail himself of it. In Flanders it is saved with the greatest care, and mixed with rape or oil cake as the very best manure which they can apply to their lands. The only provision in this country on any extensive scale for saving it, which we have met with, was at the farm of Robert Smith, Esq., near Baltimore where a hundred cows were kept; a large reservoir was made in the yard, and gutters and covered drains were formed for the purpose of conveying the urine to this deposit; from which it was taken, and by a machine like that used for sprinkling the streets of cities, was distributed over the fields. The value of this manure is very great, and is not yet appreciated among us. No provision is made for saving it in any of the cow-houses of New York city, where some of the milk establishments exceed three hundred cows, and the feed to which they are accustomed produces the most abundant secretions of urine.

The grand building in the Harleian dairy, which had stalls for one hundred cows, was 94 feet long by 63 feet wide, within the walls. It had vaults under the whole, divided for the purpose of receiving the dung, of storing potatoes and roots, and for an apartment for keeping the cows that were dry and prepared for fattening. This apartment being quiet, and having little light, was deemed better adapted for carrying on the process of fattening than the other cow-houses; darkness and quiet generally contributing to assist the progress, and making the cattle much sooner fit for slaughtering.

It was deemed highly important, and it was so contrived, that the house should be perfectly ventilated, and at the same time preserve an equal temperature—both which points were conducive to their milking and fattening, and the cattle were in this way kept in the best health and condition. The heat was generally kept at the temperature from 60 to 64 degrees of Fahrenheit's scale; and as the walls were plastered carefully, the cattle never experienced any injury from cold even in winter. A direct current of cold air suddenly admitted, was found to be exceedingly injurious, and much pains was taken to avoid this.

The floor on which the cows stood was raised six inches above the passages; this not only showed the cows to advantage, but kept them dry and clean; and two and a half feet of the floor next to the trough was made of composition similar to what is commonly used in making barn floors; because the principal weight of the cows being upon their fore feet, and as in lying down the whole weight is upon their knees, it was obviously desirable to have that part of the stall as smooth and soft as possible. In all cow-houses, he remarks in continuation, the front part of the stall should be rather lower than the back part, since it would enable the cattle to lie

easier; and besides this, they would be not apt to slip their calf.

The ordinary manner of fastening cattle in cow-houses, is to fix the neck of the animal between two stakes, which are commonly called stanchions. This mode is greatly disapproved by Mr. Harley, as it prevents the cattle licking themselves. The indulgence of this propensity he deems of much importance to the health of the animal, as it contributes like currying to promote a free perspiration, and increase the circulation of the blood; and thus conduces to their general health. He deems the free ventilation of the cow-houses of great importance; as otherwise the milk is often tainted by the bad odour of the houses, as has been experienced even in passing it from the cow into the picher. As the dung was preserved from the wind and weather, it was considered worth 25 per cent. more than that which had been so exposed; and the urine was sold by the butt of about four hundred gallons.

The milk house in its construction was particularly favored by the nature of the ground. It was long, high, and wide, and every possible means employed to have it cool and airy. The floor was paved with stone of the best quality, the milk dishes were placed upon the pavement on each side, leaving a space for a passage in the centre; they were then filled with new milk, a plug was put into the cesspool; the stop-cock at the end was turned, and the water allowed to flow until it covered the floor where the milk-vessels were placed. The house was in this way kept cool, and the floor was regularly washed and rubbed with a dry cloth; and this, with a complete ventilation of the premises kept the air pure. The churning-house at Willowbank was ventilated and lighted by windows in the north side, and in the roof, covered with fine-wire grating. The milk office contained the large tubs for receiving the milk from the cows, from which it was measured out to the distributors. The manager had a house within the premises; the dairy-maid and one or two of the servants were accommodated there, it being necessary they should be on the spot night and day. Two apartments, one for the men, another for the women, were allotted, for the purpose of keeping their clothes; and that they might more conveniently change them, before going out to deliver the milk, numerous clothes and towel pins were fixed in the wall; and the rule to be implicitly obeyed by the servants was, that their hair was to be combed, their hands and face washed, and their dress to be neat and clean. Cleanliness, indeed, was always regarded as essentially necessary in this and every part of the establishment.

Milk is often either spoiled or deteriorated from the vessels not being properly cleansed. If milk is put into a place not well ventilated, or where other articles are kept, it will affect its flavor. This was often ascertained by some of the Willowbank customers, having their milk deteriorated, after remaining a short time with them, whilst it retained its rich flavor with others, who received it from the same picher at the same time.

There was a steam engine connected with the

establishment for various purposes: for heating water, for steaming provender, for propelling a threshing machine, a turnip and potatoe slicer, a hay and straw cutter, a grain bruiser or grinder, and churning apparatus. The steam engine was one of about six horse power; but the boiler could have supplied an engine of twelve horse power. Coiled within the boiler was a leaden pipe, 150 feet long, and 2 inches in diameter; cold water was admitted at one end of this pipe by a stop-cock, and the water was heated in passing through the boiler. Branches were taken from the other end of the pipe to the scullery, hot-baths, bakery, &c.

A steam pipe from the boiler was introduced into the steaming vessels for preparing food for the cattle, so that one fire of dross was sufficient for the whole establishment. The milk office and other apartments were also heated by hot water vessels. The steaming vessels were made of plate iron; the one for cows was ten feet long, four wide, and four and a half deep, with a semi-circular top hinged on one side and lifted by weights and pulleys; the lid was formed round the edges to prevent the steam from escaping. The cut provender, consisting of turnips, hay, &c., was put into this vessel in layers, well salted, and with a sufficient quantity of water. The vessel had a false bottom, perforated with holes, under which the steam was admitted. The potatoes were generally steamed by themselves in a vessel, and the fresh water which was deemed unwholesome, drawn off. The potatoes, turnips &c., for the horses were washed clean; those for the cows were not washed, but put in by themselves; and when at the boiling point, the first water was let off; they were then mixed with turnips, hay, &c. in alternate layers, and sprinkled plentifully with salt.

Every milker had a strong tin vessel without a lid, which held about forty quarts. As each cow was milked, the milk was emptied into this vessel, which was placed in the transverse passage to be out of the reach of any thing that might fall into it, if it were placed in the passage behind the cows. When the vessel was filled it was carried to the milk office, and emptied into the receiving tub, and the quantity marked upon a slate by the clerk or person in attendance; this task was repeated till all the cows were milked, and the whole transferred to the milk-book.

Each distributor had a pair of milk-pitchers, with lids to fit tight, which contained from twelve to eighteen quarts. These were locked and secured to prevent adulteration. Every possible pains was taken to preserve the milk free from any extraneous substance, and to deliver it pure to the customers.

We proceed now in our account of the Glasgow Dairy, or milk establishment, quoting freely from the accounts given of it by Harley himself.

As there would occasionally be a surplus of milk, what was returned or not wanted for the customers, was set for cream. Most of the vessels for raising cream were made of oak, and were well washed, boiled, and rinsed every time they were emptied. To prevent the bottoms from twisting or warping by boiling, there was

a second bottom transverse; and the two bottoms were pinned together as in ship building. They were twenty-seven inches in diameter and five inches deep.

We believe that wooden vessels are, after all, much to be preferred for the keeping of milk. Metallic dishes of every kind are liable to be corroded by the acid of the milk, producing in some cases, a compound absolutely poisonous; and earthen vessels, which are glazed with lead, are liable to the same objection. Glass or china would be too expensive, and not procurable; wooden vessels may require rather more care in order to keep them clean, but there is no impracticability in the case, otherwise they are liable to no objection.

The vessels for holding milk and cream for souring, stood in the churning house or an adjoining apartment; the milk or cream stood in them until it was thick and sour, without which it would not churn to advantage. There was a vessel for each different milking, as it was found injurious to mix the milk; and if milk and cream were put in at different times, it was always well stirred. It was found, however, that the preferable way, was to keep every quantity distinct and to allow it to become sour by itself.

Large stands were filled at the wash trough and carried to the head passages at feeding time; from these the feeders gave a small additional quantity of food to the cows as they required it; but great care was taken not to give too much to any. Some distiller's wash, or waters, or a mixture of both, was given them to drink; and when the animals were satisfied the vessels were removed. There was also a feeding vessel or tub for each cow, which was made of oak twenty inches in diameter, and ten inches deep.

The byemen were each applied with a rake, a broom, and a forked stick for gathering up the dry litter to the forefeet of the cows; these were preferred to iron, which sometimes injured the animals feet. Each milker had a coarse towel, a washing cloth, a currycomb and a hair cloth.

Early in the season, part of the proprietor's farm and some small fields contiguous to the cow-house, were sown with barley and grass seeds; these were watered with cow urine by means of an engine upon the principle of a fire engine. There was also used for that purpose hand barrows with broad wheels, upon which barrels were placed filled with urine. Under the barrels were placed conductors about eight feet long, perforated with small holes; these barrels were easily wheeled along the rich soft ground which would have been destroyed by horses and carts. The urine was carted to the fields in large casks, from which it was carried in stands resting on spokes, to the engine and barrows.

The grass of the fields thus irrigated was cut 5 or 6 times a year; and though not very long in the blade, there was always great weight of produce. Indeed it was so thick and rich that it would have rotted unless cut often.

The first cutting generally commenced about the middle of April and was continued once a month. The grass was cut during the day, when the weather was wet or moist; but when it was

dry it was cut late at night or early in the morning, and the field irrigated immediately after being cut; the process was sometimes performed during the night. Sir John Sinclair visited one of these fields, which had been cut sixteen times in three years.

There was a public washing house adjoining the dairy, all the soap suds from which was carried into a well or tank, and applied in the same way as urine; and sometimes the two liquids were mixed together, or if the weather was very dry the urine was diluted with water. If private families were to preserve their soap suds, and the urine of their cow if they have one, it would be found of essential benefit in manuring their gardens.

The provender commonly used at Willowbank, consisted of hay, straw grass and green barley; also swedish turnips and the different varieties of Aberdeen yellow, red tops, &c. also mangle wurtzel, carrots, cabbage, ground oil cake, bruised beans and other grains.

Mangle wurtzel was recommended to the proprietor as provender for his cows upon economical grounds. He accordingly made trial of it in 1814, but the result did not answer his expectation. It was not productive as a crop except in particular soils, such for instance as suited carrots. Besides it did not stand the frost, and it was found necessary to be taken up in the fall, the tops cut off, and the roots used during the winter, mixed with other provender. A trial was made with this root and Swedish turnips; a corresponding weight of each was given to two lots of cows of equal numbers, and great attention was paid to the quantity and quality of milk produced, and the improvement in the condition of the cattle.—In these respects however, there was found to be little or no variation. The quantity and quality of the milk, and the improvement in the condition of the cattle were much the same; but as the mangle wurtzel did not stand the frost, and moreover required a deep soil in the cultivation, the Swedish turnips were necessarily preferred.

About this time, Mr. Coke of Norfolk, lost some cows, and other agriculturists had their cattle much injured by eating mangle wurtzel; a circumstance which excited intense interest not unmixed with serious apprehensions and gave rise to much discussion in the periodicals of the day on the merits of that root. There was no instance however, in the Willowbank Dairy of any bad effects resulting from the use of it. The quantity given as a mixture, however, was comparatively small, except on the occasion just noticed, when trial was made of it with the turnips; and before that trial was made, the roots had laid a considerable time in a dry cellar, whereas Mr. Cokes' cattle had the root and leaves when full of juice.

These statements by Mr. Harley, seem to me of considerable importance. I have had considerable experience in raising both the mangle wurtzel and the ruta бага. The mangle wurtzel is a far less certain crop than the ruta бага. It yields often a great amount to the acre, though either through the seeds not germinating, or the plants being cut off after it came up, there were always large vacancies in the field, which vacancies however, I usually filled up with ruta бага.

The mangle wurtzel was liable to be injured by the frosts, and in my own experience it has not kept by any means so well as the ruta бага. As feed for milch cows, I have found them always very fond of it; that it greatly increased their milk; but at the same time rather disordered their bowels and very much reduced their flesh. I have given it always however in good quantities, at the rate often of a bushel after being cut, to a cow per day. Some gentlemen, for whose skill and experience I have great respect, have used and highly approved it. John Lowell, Esq. speaks of its use for milch cows in terms of strong commendation. To ruta бага, I have no objection to be urged excepting the taste which Cobbett in his enthusiasm for ruta бага insisted upon it, that this peculiar flavor was absolutely agreeable; but to many persons it is extremely nauseous. If the turnips are sound and no decayed parts are given, this taste is not always perceptible; but it becomes so as soon as it is heated, the butter being melted or the cream or milk applied to tea or coffee. There is said to be remedy for this taste by using a very small quantity of saltpetre in water, in the milk as it comes from the cow; but I cannot in this case speak from experience.

Mr. Harley continues his account by saying, that instead of attempting the illjudged economy, which pinches the cattle of their food, every attention was paid to make each cow eat as much as possible without running into the opposite extreme of overfeeding; and for that purpose the mixture was occasionally varied; and sometimes a few raw potatoes or turnips were given by themselves, which tended to whet their appetite. There is a Scotch proverb which says, "the cow milks by the mow," and as the object of the Harleian Dairy was to fatten as well as to yield, the more care and good management were exercised in their feeding, the sooner these objects were accomplished.

Young grass and green barley, but particularly young clover, contain a great quantity of juice, and fixed air, which has often proved injurious to cattle. The irrigation with urine made these crops luxuriant and rich: The first cutting was therefore mixed with a large proportion of old hay or straw, to which was super-added a good quantity of salt, to prevent the cows from swelling or blowing. When wet a greater proportion of these ingredients was used; this mixture was allowed to stand from twelve to twenty-four hours, and was frequently turned and shaken to prevent heating. Young or wet clover was never given without a mixture of dry provender. By this means the rich juices of the green food were absorbed by the dry fodder, which enabled the cattle to feed freely without the risk of injury.

In proportion as grass decreased in the autumn, turnips became a substitute. As the season advanced when grains and distillers' wash were plentiful and cheap, which was generally the case in winter, a large proportion of these was given with the more succulent food; but they were apt to make the cattle grain-sick, and to prove injurious to the stomach of the animal. It has been ascertained if cows are fed long upon grains of distillers' wash, their constitution

will be quickly destroyed; cattle thus fed should not be kept longer than eight or ten months. One effect of this copious feeding upon distillers' wash, as we have learned at the New York city establishment, is that after a while the teeth of the cows thus kept become loose; and they are unable to masticate any hard or long food. It seems to be a pretty fair inference that where the constitution of an animal becomes thus affected or diseased, the quality of the milk is likely in a correspondent measure to be injured. Of this however, the buyer is not able to know any thing, and it is not for the interest of the seller to enquire too particularly.

VALUABLE ESTATE AT HYDE PARK, FOR SALE.

THAT Valuable and well-known Country Seat and Farm, at Hyde Park, Dutchess Co. N. Y. owned and occupied as a country residence by the late Dr. David Hosack, consisting of about 750 acres of Land, part of which is in a state of high cultivation, and part woodland. The Mansion is large, commodious and well built, and is admirably adapted for a country residence, the Stable is built of Stone and both a useful and ornamental building, unsurpassed by any thing of the kind in this State, the Barns and out buildings are very extensive and well built.

The natural beauties of Hyde Park are so universally admitted to be unsurpassed, that a particular description need not be given in an advertisement. In a pecuniary point of view the most valuable part of the property is the stream of water which runs through it, and belongs to the estate; it is capable of being made to yield a large income, either by renting mill sites, or by erecting and renting mills. The fall is so great from the entrance of the stream into this property, to its termination at the Hudson river, that the water can be used to great advantage from one level to another. On the river is a large dock, well adapted for the building of vessels, and adjoining it a landing, where the different steamboats touch and which rents very readily.

There are several houses and mills occupied by different persons on the property, which are rented without difficulty; the income derived from these is at present nearly three thousand dollars per annum. The village of Hyde Park has been increasing latterly, and one or two tow boats leave the landing weekly.

The distance from New York is about 86 miles, or seven above Poughkeepsie. Any gentleman who might purchase the whole property, can, without difficulty, sell such parts of the estate as he may not wish to occupy, and also the water power, and still retain a magnificent country residence at a comparatively moderate price.

For further particulars and terms, enquire of Dr. A. E. HOSACK, No. 40, Warren street; JACOB HARVEY, No. 30, Pine street, and of JAMES BLEECHER & SONS, 13 Broad st. July 26 2m

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

July 5 2t Light near Pratt st. wharf.

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper. June 28

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	7 50	8 75
CORN, yellow,	bushel.	85	—
White,	"	78	80
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18½	20
Louisiana 19—Alabama	"	18	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 00	9 50
Do. do. baker's,	"	—	—
Do. do. Superfine,	"	7 75	8 00
SuperHow. st. in good de'd	"	7 75	8 00
" wagon price,	"	7 50	7 75
City Mills, extra,	"	—	8 25
Do.	"	—	8 00
Susquehanna,	"	7 75	8 00
Rye,	"	5 25	—
Kiln-dried Meal, in hhds.	hhd.	—	19 00
do. in bbls.	bbl.	4 00	4 12
GRASS SEEDS, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 75	3 25
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 75	8 25
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LINE,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	40	42
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	—	3 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGE,	pound.	3	4
RYE,	bushel.	100	105
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	4 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	1 75	1 80
Red,	"	1 60	1 70
WHISKEY, 1st pf. in bbls. }	gallon.	38	39
" in hhds. }	"	35	—
" wagon price,	"	31	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 50	—
WOOL, Prime & Saxon Fleeces, ...	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,	"	38 40	26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior in points. His price is \$300.

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BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	16	17
Shoulders, do.	"	12	—
Middlings, do.	"	13	13½
Assorted, country,	"	11	—
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 75	—
CHOP RYE,	"	—	1 87
EGGS,	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, \$8. No. 3	"	—	5 25
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	par
Branch at Baltimore, do	Farmers Bank of Virginia ½a
Other Branches, do	Bank of Virginia, do
MARYLAND.	Branch at Fredericksburg do
Banks in Baltimore, par	Petersburg, do
Hagerstown, ½a	Norfolk, do
Frederick, do	Winchester, do
Westminster, do	Lynchburg, do
Farmers' Bank of Mary'd, do	Danville, do
Do. payable at Easton, do	Bank of the Valley, do
Salisbury, 5 per ct. dis.	Branch at Romney, 1
Cumberland, ½a	Do. Charlestown, do
Millington, do	Do. Leesburg, do
DISTRICT.	Wheeling Banks, 3½a4
Washington, } Banks, ½.	Ohio Banks, generally 3a3½
Georgetown, } Banks, ½.	New Jersey Banks gen. 1½a2
Alexandria, } Banks, ½.	New York City, ½a
PENNSYLVANIA.	New York State, 2½a3
Philadelphia, ½a	Massachusetts, 2a2½
Chambersburg, ½a	Connecticut, 2a2½
Gettysburg, do	New Hampshire, 2a2½
Pittsburg, 2a2½	Maine, 2a2½
York, ½a	Rhode Island, 2a2½
Other Pennsylvania Bks. 1½a2	North Carolina, 3a3½
Delaware [under \$5] 3a4	South Carolina, 3a3½
Do. [over 5] ½a3	Georgia, 3½a4
Michigan Banks, 5a	New Orleans, 6
Canadian do. 5a	

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener.

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CONTENTS OF THIS NUMBER.

Summary notices of the crops—origin of the Hessian fly—a judicious recommendation to sow buckwheat—notice of a beautiful specimen of sewing silk—mode of cultivating peach trees in pots—anecdote of a farmer and Earl Fitzwilliam, or honesty rewarded, with remarks by the editor—prolific grain of rye—vegetable substances for dyeing—great value of the yellow locust for timber—notice of the beautiful estate of the late Dr. Hosack—destructive effects of the caterpillar—value of the Durham breed of cattle—how to preserve cucumbers from bugs—cure for the rot in sheep—interesting description of the Harleian dairy—advertisements, prices current, &c.

DURHAM STOCK FOR SALE.

THE Editor of the Farmer and Gardener has for sale, at his residence 2 miles from Baltimore, on the Philadelphia turnpike road, the following full bred improved Short-horn Durhams.

Bull *Brilliant*, a large sized animal of the Improved Durham short-horn breed. He is white with red spots, and has a thin and most delicate skin of the colour of cream, evidently evincing his superiority for the dairy; he has sired several animals of reputation; one of his calves the last spring weighed 84 1½ pounds, when taken from its dam. He is perfectly docile. His price is \$300. He was got in England, and calved in Frederick county, Md. on the 12th May, 1829. His dam was Matchless, got by Favorite, purchased at the sale of the late R. Colling, a celebrated breeder son of Favorite, dam by H. Allison's gray bull, sire Orlando, that died on the passage from Liverpool, out of Rosina, from Yorkshire, which bull gained the highest prize premium of 10 sovereigns at a cattle show in Manchester, England.

Until disposed of, this fine bull will stand at the residence of the editor of this paper at \$5 per cow, and as an inducement to those who may have cows needing his services, the editor will oblige himself to give \$15 for any female calf which may be borne to *Brilliant*, when 6 week sold, whose dam is a deep milker.

Also, a white and red Heifer, a pure and full bred improved short horn, of beautiful proportions and fine growth. She was calved 9th June, 1834, dam Blossom. Blossom out of Matchless, a full bred improved short-horn cow, got by Favorite, son of R. Collings Favorite, whose dam was by H. Allison's gray bull, sire Orlando, a celebrated improved short-horn bull, which gained the highest prize premium of 10 sovereigns at the Manchester cattle show.

This is a most promising animal, and is now in calf to that fine bull *Brilliant*, and is the grand daughter of that great animal Emperor, raised by the hon. Charles A. Barnitz, of York, Pa. which weighed in September, 1835, when *thin* in flesh, 3710 lbs.!

HE HAS ALSO FOR SALE,

That celebrated and beautiful full bred improved short-horn Durham Cow, raised by that distinguished and sagacious breeder, John Barney, Esq. which was so admired at the fair last fall. She is of a fashionable roan color, of silky hide and buttery skin, and as a proof of her goodness as a milker, the editor would remark, that she gives, when fresh with proper treatment, 16 quarts of milk per day.

Besides these fine animals, he has the following on commission for sale, viz.

That thorough bred improved short-horn Durham bull *Superior*—he is a beautiful roan, was bred by Stephen Williams, Esquire, of Massachusetts, and was calved July, 1831.

Superior was got by Frederick, dam Yellow Rose by Young Denton, (963)

g. d. Arabella (imported) by North Star (460)

g. g. d. Aurora, by Comet (155)

g. g. g. d. do by Henry

g. g. g. g. d. by Danby, (949)

Frederick was got by Wye Comet

Dam Tulip by Young Denton (963)

g. d. Tube Rose 2d (imported)

g. g. d. Tube Rose

g. g. g. Tulip Comet (157)

g. g. g. g. d. Cherry by Ladron.

Arabella and Young Denton were sent out by Samuel Williams, the American banker in London, to his brother in Massachusetts to improve the cattle of this country, and, says our informant, never did a man hit more luckily; for the stock from young Denton have not only proved of fine size and form, but deep milkers.

Superior has two crosses per Denton, and is a very square, compact built animal, straight on the back and legs, broad on the loin and hips, chest deep and broad, short and small in the leg, rather heavy in the head and neck. So far he has proved a sure and good stock getter. \$50 have been refused for his calves by native cows. His price deliverable in Baltimore is \$300.

Also, a Hampshire Down Buck, 7 years old—price \$100—and

A South Down Buck, 1 year old this spring—price \$50.

All letters upon the subject of the purchase of either of these animals, must be post paid.

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THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 14.

BALTIMORE, MD. AUGUST 2, 1836.

Vol. III

THIS publication is the *successor* of the late
AMERICAN FARMER,

and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 2, 1836.

A FINE SAMPLE OF WHEAT.

We were shewn a few days since by *Robert S. Buchanan, Esqr.* a sample of wheat in the head, raised on his farm, situate in Marshall co. Virginia, about 7 miles from Wheeling, on Big Wheeling creek. When we say we were agreeably surprised at the superior quality of this wheat, we but convey a faint idea of our feelings, for from the universality of the bad accounts we had received of this grain, in almost every direction, we were not prepared to find so luxuriant a specimen. It may however be remarked that this wheat grew west of the mountains, and it is a fact worthy of notice that the crops in Western Pennsylvania, Western Virginia, and Ohio, have proved better than average crops. In many parts of these districts the wheat crops have been abundant. The Ohio wheat, however, does not find its market in the Atlantic cities, but passes through the canal to the great lakes, and thence to the Canadas, whence it is most generally shipped to England as the production of her colonies. This seeking of purchasers in the British colonial cities will cease when our Internal Improvements shall have been completed, and if nothing else should stimulate the citizens of the Atlantic states to press forward in the good work of mingling the waters of the great valley with those of the rivers and bays on the seaboard, the certainty of possessing this trade, which of necessity is driven into foreign channels should be considered sufficient of itself. Let the mediums of intercommunication between the Atlantic commercial marts and the west be once uninterrupted and continuous, and there can be no doubt but interest and feeling will induce our brethren in the latter quarter to bring all their surplus produce to our markets.

WORK FOR AUGUST.

ON THE FARM.

This is a month replete with interest to the tiller of the earth if he be wise enough to improve the present moment. Prudence, interest, and a wise economy, all combine to produce such a result the present season, and especially with those farmers who have made but light crops of small grain. With all it should have a primary object to seize the earliest opportunity of putting down an increased quantity of *Turnips*, for in proportion as they may have failed in their grain crops will they find increased demand for them, not only for home consumption, but for *market*, as every thing edible will be held in active requisition. The shortness of the crops to which we have before adverted and the influx of population from abroad, will naturally tend to produce this effect—and as sure as the needle obeys the attractive power of the magnet, will good prices reward the labors of such husbandmen as may have surplus produce for sale this year. And here, we will specify a few of those kinds of turnip that we believe best calculated for culture.

THE LARGE WHITE FLAT OR NORFOLK TURNIP.

This among the various kinds stands in the opinion of most good judges as best for table use. It comes to early maturity, and when sown in good ground, well prepared and manured, is a prolific yielder. It is a sweet and delicious root, and deservedly a favorite on every gentleman's table.

DALE'S HYBRID.

This is also a most excellent turnip, and is finding favor with good judges in this as well as several other quarters of our country. It was recommended a few years since by a distinguished citizen of the District of Columbia to a gentleman of this city, who stands second to no man in this country as the keeper of a public house, and he assures us that he prefers it to any turnip he ever raised, and that so long as he can get supplies of the seed he will raise none other for his table. It is a new variety, originated by R. Dale, esq. near Edinburg, Scotland, and said to have been obtained by him after unwearied attention in crossing with the Swedish or Ruta Baga turnip. It is closer and finer in texture

than that turnip, as rapid in its growth as the white flat turnip, and withal a great yielder, and keeps well, better than any, perhaps, except the Ruta Baga and long French. Its shape is long and color yellow.

THE LONG FRENCH.

This variety is becoming a favorite, and we have no doubt will gain upon the notice of farmers as they become better acquainted with its merits. It possesses the singular capacity of withstanding in the open field our severest winters without losing any of its virtues for the table: it does not get pithy, and is said to be as good for culinary purposes in the month of *May* as in the preceding fall. Qualities such as these we would think would commend it to the culture of all who look upon the labor of putting away their roots as a *trouble*.

The *Yellow Bullock* for late use is a turnip highly prized: the *White Stone* has its admirers also: nor is the *Tankard* turnip without its zealous friends; its large size, delicate and sweet flavor, peculiarly fit it for culture where quantity and quality are sought after.

These three latter turnips should be sown immediately. For directions for the management of this crop we refer to the very able paper of R. Sinclair, in our 11th number of the present volume.

A word or two more and we shall have been done with our remarks on turnips. If you have not already provided a *large* quantity of roots, as mangel wurzel, ruta бага, potatoes, beets, carrots and parsnips, for your stock, do not omit to sow a *full* supply of turnips for them; they are cooling and healthful when cooked for every kind of domestic beast, and when given to milch cows are highly promotive of the quantity of milk secreted. It has been said and with truth that the milk taken from cows fed on turnips is *poor*; but that may be corrected by the addition of half a peck of bran to each feed, and it is also said that such milk is badly flavored—now with the addition of, say the eighth of an ounce of saltpetre, thrown into a gallon of the milk when first taken from the cow the turnip-odor may be entirely overcome. We will stake our reputation for truth upon this assertion—that two acres devoted to turnips will give to every farmer the means of

making his cows give good supplies of milk during winter.

Buckwheat—Though it be late a profitable crop may yet be made of it, and the judicious farmer will doubtless lay hold of the present moment to put in a large crop of it. To the eastward it is not unusual to sow it with fall grain, and it is affirmed by good farmers in that thrifty part of our country, that it does no injury to the young plants of wheat or rye, but on the contrary serves to protect them through the winter, and by the decomposition of the stalks and leaves to afford nourishment in the spring. This practice doubtless arises in many instances from the circumstance of the scarcity of land, and although we would be far from recommending a practice founded on *necessity* unless sustained on what we would term sound principles, yet there are occasions which would justify such a departure from the beaten track, and it may very properly be suggested whether the present season is not of that character. Heavy cropping where there is *no return* is an evil of serious magnitude, but as extreme cases justify remedies of a similar character, no possible harm can arise from throwing out the suggestions we have made, and we respectfully leave it to our readers to improve them or not as to them may seem most mete and proper.

The **Corn-fields** should be kept well stirred with the cultivator, and the ground immediately around the stalks loosened with the hoe. The great object in the culture of corn should be to keep the weeds down and the soil open, so that the dews and rains may penetrate the earth and nourish the plants through their roots. The old practice of ploughing and *hilling* of corn is deservedly getting out of fashion; for there can be nothing more unreasonable than the violent cutting and separation of the young roots through which the stalk derives a large portion of its nutriment—nor is the old practice of raising a mound around the stalk less pernicious, it only serving to prevent moisture in the shape of rain and dew from finding its way to the countless branches and ramifications of delicate roots which strike out in every direction.

The late **Potatoes** must be watched, kept clean, and the earth open. In the culture of this root, the great art is to do the *right thing* at the *right time*, and, therefore, that which should command our attention to-day must not be deferred until to-morrow.

If you have any ground to clear, girdle your trees this month: if you have underwood in a field that you destine for cultivation next season,

cut down the bushes immediately and girdle the trunk also. Trees and bushes thus served at this season of the year stand less chance of growing than when done at any other, and the roots it is stated will the sooner rot, and offer less resistance when you come to grub them up.

If you would be wise, you should occupy all the spare time of your hands in husbanding manure.

Your **Sheep** should now command your attention, it being the period of the year when that destructive insect or fly termed *æstrus ovis*, lays the foundation of its future mischief. A little *preventive* care practiced now may save you many valuable lives among your flock, whereas, if you neglect the present occasion, all your *curative* skill in future may be exerted in vain. The remedy is simple, and you should not omit it!—Place in a box under cover within reach of your sheep, a small quantity of tar, mix with it an equal portion of salt—to this they will daily resort, and while in search of the salt will so smirch their noses as to defy the attacks of the insidious insect, that has proved so unsparing a destroyer of the race.

If you have thistles or other noxious weeds in your fields, as this is the season when they are mostly in flower, cut them down near the ground, and you will find next year that they will be much fewer in number. A few annual attacks of this kind will rid your estate of most of those pests which so annoy you and deteriorate the quality of your produce.

Your **wheat** lands should now command your prompt attention, whether you contemplate sowing on your corn ground or on a clover lay or grass sward; for although we would not recommend *very early* sowing, still we do most cordially admonish you to be beforehand in your preparation. If you intend to turn down a clover-lay or grass-sward, the sooner either is done the better, but before you put your plough into the earth, if you can possibly accomplish the means, put on from fifty to a hundred bushels of lime to the acre—the lime besides being the natural food of the wheat plant, will cause the vegetable matter turned in to undergo immediate fermentation, and consequent decomposition—after ploughing up your field wait for two or three weeks as may best suit your convenience, then harrow, and while the earth is freshly stirred sow your seed, and here let me once more admonish you not to be sparing of your seed—six pecks to the acre at least (in England from 2 to 2½ bushels are frequently sown) should be sown; for he who is niggard of his seed must expect to

reap a fruitful harvest of weeds; as the earth must and will be occupied—if a man sows seed enough to keep down the weeds, then may he expect that his fields will be clean of them; but if in consulting an erroneous system of economy, he neglects to occupy the soil with healthful vegetation, as sure as he lives will he find the earth teeming with weeds. There is no more pernicious opinion among farmers than that which inculcates the belief that if you sow your small grain *thick* it will not yield well. The earth is just as competent to raise a plant of wheat as it is a worthless weed, and nothing is more true than that if you fail to occupy the earth with the former, the latter will volunteer to rebuke you for your lack of discernment and profligate waste of means.

In the selection of your seed you cannot be too particular, and it seems as a well established principle in the economy of this grain as any other, that the same wheat should not be raised more than two years on the same farm in succession. The most observant farmers have noticed a very palpable deterioration after this period in the product. Even changes of seed from one farm to another in the same neighborhood have been found beneficial; but then it is worthy of being indelibly fixed upon the mind of the farmer, that nature, when her vegetation becomes sickened from *local* causes, requires a more radical remedy than that which a *change* of a mile or two is competent to produce—for a *change* to be efficacious and decidedly salutary, the seed must be brought from a distance of some hundred miles, and should always be procured from a situation north of that on which the seed is to be sown.

No seed wheat should be sown before being well soaked in brine, lime-water or ley, and rolled in plaster, ashes or lime.

Rye—The season has arrived when the ground for this grain should be got ready. With regard to the time of sowing, it may be safely laid down as a rule, that any time between the middle of this or the next month will answer, or, indeed, even much later. It thrives best on a gravelly soil, but will do well on any light soil, and will make a saving crop on any ground in moderate heart. The most approved opinion is that it is not an exhauster of the soil, and will therefore prosper best on land which is not *rich*. This opinion we presume has obtained currency because like oats it has been generally cultivated on ground of the least fertility on its grower's farm; but we question much whether the quantity and quality would not both be improved by being grown on fields which had been rendered in a

good state by a dressing of ashes or calcareous manures.

Timothy—The best time for sowing this seed is from the beginning to the middle of this month; it may however be sown later and will succeed well if the winter does not come on too quickly. Whether it be sown with winter-grain, with turnips, or by itself, the ground should be thoroughly cleaned and well pulverized. From 8 to 12 quarts to the acre is the proper quantity of seed. Many timothy fields which run out in a few years might be prolonged in their profitable yield, if the harrow was passed through them each spring, and a light top-dressing of well rotted or calcareous manure were applied. The practice which prevails of permitting cattle to graze on timothy meadows late in the fall tends much to destroy the meadows themselves, and it may be very safely set down as a maxim, that where they are intended for the production of hay, cattle should not be permitted to tread their hoofs upon them.

IN THE KITCHEN GARDEN.

Asparagus—The plantations of this vegetable which were made last spring must now be very carefully hand-weeded, so also the old ones and seedling beds.

Peas—The early frame, Golden, and Charlton hotspur peas may now be sown, and will yield tolerable supplies for your tables next month.

Celery—Your plants should be now set out, and your early kinds must be earthed up.

Beans—Most of the kidney beans should now be planted; but to force vegetation the seed should be soaked five or six hours before planting.

Endive—In the early part of this month you should sow a crop of this vegetable for autumn and winter use; the green curly sort is the hardiest and best adapted for the present season. Your early endives should now be tied up or covered for blanching.

Cucumbers for pickles should be put in, and those that are growing should be kept clean.

Lettuce, cresses, radish, rape and mustard seed should be sown throughout this month at intervals of a week. Your lettuce plants should also be transplanted.

Spinach—Sow your spinach seed at the beginning of this month, and throughout the month at intervals of a week.

Cabbages, Savoy—Plant out your Savoy plants at 2 feet apart. Your early Yorks and other cabbages should also be put out: and if you wish to have good thriving plants to put out for early use, you should not omit to sow your

seed this month. There are now such a variety of the early sorts that you cannot go amiss; there are Cribb's early York, the Early York, early large, York or Harvest, early Bullock's heart, early George, and a dozen other kinds in great repute among gardeners.

Strawberries.—Your strawberry beds should be thinned and deprived of all runners, and should you wish to make a new transplantation now is the time for doing so.

IN THE FLOWER GARDEN.

If, as you ought to have done, you laid down your carnations and pinks about the end of June, now is the time for transplantation.

Attend to your bulbous roots, and transplant such as may need it—And you should also now sow the seeds of such bulbous roots as you may desire to experiment upon.

The *Double Rocket* Larkspur should now be sown. We need not say that this is amongst the most beautiful of the annual plants, as every one who has tried it will exclaim—that would be sending coal to New Castle.

About the end of this month sow the *Mignonette*, that delightful little annual, so modest in its appearance, and so odoriferous in its scent—cover it when frost comes, and when spring and summer shall have arrived, it will remind you that your attention was not lost upon it, for its exhalations will convince you that among the beauties of God's creation there is nothing more acceptable to the human senses than is the delicate *Mignonette*.

A PREVENTIVE OF THE WHEAT FLY.

The following communication we copy from the *Baltimore American*, and commend it to our readers as being worthy of their attention. We published under our head of "Work for September," in our 18th number last year, the same recipe, with the exception that we recommended the seed to be passed through strong ley, or lime water, instead of pickle.

From the American.

MESSRS. EDITORS—Some time since in a communication published in the *Baltimore papers*, I stated my views on the destruction of wheat by the Hessian fly, and offered a remedy against its ravages. As this season will be remarkable for the devastation committed by this insect, and as the time is approaching for seeding for the next crop, I request a small space in your columns to bring before our farmers again the remedy then proposed, fully believing that if followed much good will result from it.

On observation it has been found that the insect producing the fly progresses with the growth of the wheat; and if the wheat is early sown, and the season is favorable to a luxuriant vegetation, the fly will be very perceptible in the autumn.—

The progress of the insect, as is observed in a former communication, is from the seed upwards, and as many as six or ten have been observable on one stem between the root and surface of the earth. The question then arises, how is this insect generated, and what means should be used to destroy it? It is either generated in the grain of wheat similar to the bug which infests the pea, or the insect when in its winged state deposits an egg on the surface of the grain when in the ear and thus when the wheat is sown and begins to vegetate, the egg vivifies and the destructive worm is formed.

For the following reasons I am strongly inclined to the latter opinion. It is known that this insect releases itself by bursting the blade that covers it, when the head is forming, and assumes its winged state, and there is to my mind no doubt that this fly deposits its egg on the wheat when filling and coming to perfection. If I had any doubts on this subject they would be removed by the fact that with the aid of a microscope the egg is discernible in the form of a glutinous matter. If this opinion be correct, the remedy is simple, and worthy at least of a fair trial. Providence inflicts no evil upon mankind without also providing some remedy, and unless this is intended as a special curse upon the husbandman, there is and must be a remedy which he must find out by actual experiment.

In the course of twenty years experience in this matter, I have known but one experiment made to destroy this fly, and that proved successful. An intelligent farmer in Loudoun county, Va. having understood that some of his neighbors with the aid of a microscope, had discovered a glutinous matter on the surface of the wheat which they believed to be the egg of the fly, determined to try an experiment for its destruction and succeeded in that crop; but unfortunately it was not followed up, and whether it will be an effectual remedy in all seasons, remains yet to be tested. The plan which he followed, and which it is the object of this communication to recommend to the notice of the farmers, is simply to pass the seed wheat through a strong brine or pickle, washing it well, and then rolling it in slackened lime, (similar to rolling it in Plaster of Paris) not preparing at one time more than a day's sowing. Washing the wheat in brine, and rolling it in the lime are done primarily for the purpose of destroying the egg, but it answers another good purpose—that of preventing the growth of smut. The lime will also be found to act as a powerful stimulant to the growth of the wheat, and superior to that of plaster.

This remedy being so simple, and as I firmly believe so efficacious, I hope there will be many farmers disposed to make trial of it, and thereby fully test its correctness. If I should be instrumental in arresting the progress of this direful enemy of the farmer, I shall be amply compensated in the recollection that I have discharged my duty to the community.

AN AGRICULTURIST OF MARYLAND.

A NOBLE COW.—The Delaware County Republican states, that Mr. Robert Hervis, of Chester township, in that county, has in his possession a cow from which he makes on an average twenty pounds of butter per week.

Supposing that some of your readers might take a similar interest to that which I have felt in reading the extraordinary produce of a farm in Kentucky, during the last year I transmit it to you for publication. Mr. Jos. S. BATE, a farmer residing near Louisville, in that State, died in December, 1834, having made every preparation for the crop of the ensuing year. He left to his widow his farm, a part of his stock, and 16 farm hands. And here is the result of Mrs. BATE's operations in the year 1835:

61 tons of hemp at \$200 per ton	\$12,200
375 tons of hay, at \$10 per ton,	3,750
2,000 barrels of corn at \$2 per barrel of five bushels,	4,000
2,000 pounds of pork, at 5½ cents per lb.	1,100
Wool \$450, wheat \$500, beef \$160	1,110
Oats \$200, hemp seed (150 bushels at 1,30) \$225,	425
Apples and Cider \$300, marketing \$200,	500
150 bushels of Irish potatoes at 50 cts. per bushel,	275
	\$23,360

This account has been verified and forwarded to a member of Congress from Kentucky. Is there any other lady in the United States whose agricultural labors have been equally productive with those of Mrs. BATE? I am quite sure that she has surpassed any man in any part of the Union.

A KENTUCKIAN.

TO RENOVATE FRUIT TREES.

From the 20th to the 22d of this month, June, being the longest days of the year, if the bark of old apple and peach trees is peeled off, (on those days) a new bark will come on, and the trees will bear fruit like young trees. Care must be taken not to cut through the sap, as it will be the cause of a separation of the new bark. Caution must also be taken if the sun should shine hot, or if it should rain on that day, that a shelter be made to prevent the sun from drying the sap, or the rain from washing it off. I tried this experiment on a few old trees about 3 years ago, and found they got new bark, and bore fruit equal to young trees. I also tried old peach trees at the same time, which would not answer at that time, but probably if the bark should be peeled off peach trees when the second sap should be at its change, they would produce the same effect as 3 years ago. I tried all the experiments I could discover from books on agriculture, and found them only a temporary relief to peach trees: I then dug a hole about 8 or 9 feet from a few young peach trees, to the depth of about 3 feet, to obtain about 10 or 12 bushels of fresh earth, which was piled next to the trunk of the trees in the form of a sugar loaf. I found that those trees on which I tried the experiment, became very luxuriant with large green leaves, and those I did not apply the new earth to were sickly.—This banking did not answer for old peach trees. In the spring of 1835, I banked 250 young peach trees that were sickly in the same manner, and they are in a promising state, with luxuriant leaves.—*Rhode Island American.*

From the Philadelphia Herald, Extra.

BEET SUGAR.

The immense benefits to be expected from introducing the Sugar Beet into the United States, had for a considerable time occupied the attention of James Ronaldson, Esq.; when in the month of January he was introduced to Mr. Jas. Pedder, a gentleman who possessed information on the subject of the Sugar Beet. Mr. Pedder had been long known to John Vaughan, Esq. who with Mr. Jacob Snider, jr. now took a lively interest in the concern, and after several interviews it was determined to despatch Mr. Pedder to France, with the view of obtaining accurate information on all subjects, connected with the culture of the Beet and the use to which it is applied. The responsibility and expense of this undertaking were assumed by Messrs. Ronaldson, Vaughan, and Snider, in the confident belief that they would be sustained by their countrymen in this laudable undertaking. It was important that Mr. Pedder should be despatched immediately in order to witness the process of making Sugar in France, and to send out seed in time to be planted in the United States the present season. Mr. Pedder left Philadelphia on the 8th day of February, and his mission has been attended with the most gratifying success, nearly 600 pounds of seed have already been received, and portions of it distributed through various parts of the country. Several patriotic individuals have made contributions towards defraying the expenses of this undertaking, in sums of from ten to fifty dollars each. But the amount yet received is inadequate to the expenditure. An association has been formed, of which James Ronaldson is President, John Vaughan, Vice President, and Jacob Snider, Jr. Secretary and Treasurer. The object of this society is to collect and disseminate information for the benefit of the community generally without any view to pecuniary emolument. Further contributions in aid of this object are respectfully solicited, and will be received by the following named gentlemen:—

JAS. RONALDSON, Esq. President, corner of 9th and Shippen-street.
JOHN VAUGHAN, Vice President, 32 Walnut-street.
JACOB SNIDER, Jr. Treasurer and Secretary, do.

MANAGERS.

Samuel Richards, Esq., Arch, above 9th,
Nathan Dunn, Esq., Portico Row,
Joseph D. Brown, Esq., Church Alley,
Isaac S. Lloyd, Esq., Penn Square,
Samuel Breck, Esq.,
J. S. Lovering, Esq., Church Alley,
B. M. Hollinstead, Esq. No. 14 North 6th street,
Joseph Sill, Esq., Chesnut-street opposite State House,
John Richardson, Esq., 10th near Arch-st.,
James Wood, Esq.,
Frederick Brown, Esq., 5th and Chesnut st.,
George Zantzing, Esq., 25 Dock-st.,

As an increased interest is being manifested on this subject, we have solicited and obtained from Mr. Snider, Treasurer and Secretary of the Beet Sugar Society, extracts from various letters received by him from James Pedder, Esq. the a-

gent of the Society who is now in France seeking information relating to the Beet Root and manufacturing of Sugar. According to our notice on Saturday, we now give the extracts.

BOULOGNE, March 11, 1836.

"I begin by saying, if such a climate, with such a very inferior kind of Beet, the common Mangel Wurtzel, of all colors, hollow, and half rotten, they are able to obtain nine per cent. of Saccharine, America is a Gold Mine. The crushing mill is driven by five bullocks in harness, the roots are pressed towards a revolving barrel, set with teeth and the pulp falls into a box below,—a boy takes about a gallon of pulp puts it into a bag which is then thrown on a wicker frame work which rests on a small wagon. This is continued until 15 or 20 bags are heaped on the wagon; the top being covered by a wicker frame; these are placed under the press and an exhausting pump set to work, the juice is extracted in about two minutes, which is conveyed by troughs to a large cistern, and from thence it is let off into a range of evaporating pans made of copper which work by steam.

I here saw many very fine oxen fattening upon the dry cake of the Beet, sleek and fat as butter, and which I did not expect, some hundreds of sheep fed with the same in troughs and confined to the house, many of them very fat, and all looking extremely well: they had all been shorn and their fleeces turned into money. Some of these would weigh 16 lb. a 18 lb. per quarter, a large size for French sheep.

What I write will always be the dictation of my firm conviction at the time I write: I may have cause to change my opinions as I go on, which I ought to have no objection to do, and which I will candidly acknowledge.

The exertions making in France and throughout Germany to simplify the process of preparing Sugar from the Beet are immense and increasing. At the recent meeting of the German Naturalists at Bonn, the section of agriculture and rural economy was almost entirely occupied with papers and discussions on this subject. At Valenciennes a manufacturer has succeeded in discovering a method of crystalizing the Saccharine matter without producing molasses.

ARRAS, Saturday, March 25th, 1836.

J. SNIDER, Jr., Esq.

Dear Sir:—I have been most unexpectedly introduced to Professor—who is here on a mission from the government of Prussia to learn the best mode of transplanting the sugar manufacture into that country. He is accompanied by a draftsman, a student from the Royal College of Arts; and they are two of the most charming people I ever met. I shall have information which money could not purchase, and which will be inestimable; it will be the result of theory and experience which they have been acquiring at great expense on this their tour of observation, and which will secure for us the most complete success. But here I must admit that much of the poetry with which the culture and manufacture of beet sugar has been embellished has gone out. I can no longer see that it will almost pre-

pare itself for use and drop in crystals into our coffee, but I have instead of this poetical fiction, the most perfect conviction of complete success in our object, based on common sense and the experience of every day's occurrence, which far more than balances what has been lost; for this wellgrounded hope I am mainly indebted to the Professor, whose convictions as to certainty of the process and the profit of the undertaking are completed by what he has witnessed at an establishment here, to which I have access by means of a letter from J. B. and where I met with him and his intelligent friend. I have now their ground for proceeding. When I showed the Professor the different accounts which had been published, especially one at Westphalia, which shews, *almost* that the sugar will form of itself, let but the ingredients be brought into contact with each other, he smiled and said he knew how to value these accounts; they proceeded in a great measure from the real facility with which sugar might be prepared by the best means now in use in this country, and which is truly astonishing to those who have seriously gone into examination of the thing; he has given me to understand that I must not expect to find the refining process connected with the absolute formation of the sugar; that, he says is not necessary nor desirable; "let but a man be able to make on the same premises 6 or 7 lbs. of molasses for fattening bullocks and sheep, in addition to 15 lbs. of the expressed cake to mix with them, and if he is not content, why then let him go to *vapor hunting*."

The next and most important manufactory in the world is situated in this town; I have visited it three times in company with the Professor; it belongs to a Mr. —, the most respectable man I have met by far. He was engaged in the manufacture of sugar from the Beet in the time of Bonaparte and Chaptal, has continued it ever since, and has lately adopted a mode for himself which bids fair to obtain in the end universal adoption: this was the work which a gentleman at Paris said I should not be allowed to see and study, without an expense of 15,000f.—To this noble establishment I have free access by means of a letter from my friend J. B.; but I find it quite impossible to go into a full description of all its parts. Seventy-four men and women are employed here every day, and about ten less during every night. The works consume the steam of 120 horse power, crushing tons of Beets and evaporating the juice and crystalizing the sugar complete in 24 hours. From the washing of the roots to the pouring off of the juice into crystalizing pans is only the work of 10 hours, the progress being seven, consisting of rasping, pressing, desicating, clarifying and two evaporatings, in the most simple and perfect manner imaginable, all of which I shall be quite competent to on my return.—Mr. — has invented a most complete set of implements for the cultivation of a crop; a *drill that is perfect*, to sow three rows or five if preferred, with hoes &c., of the most simple and effective kinds; by these he is enabled to cultivate several thousands of acres of land in various parts of the country, his largest farm being 4 miles distant from hence; where I have seen his stock of oxen, sheep, and milch

cows and farming horses, all fed on the cake and refuse of the Sugar house and cut chaff to wonderful profit.—The cake which they are now using is six months old, preserved in magazines, of which I have a plan, where it remains perfectly vinous to the smell. Mr. C. at this and his other works prepared in 1835 two millions and thirty thousand pounds of Sugar, and expects next year to make *three millions*; the whole expense of fabrication, including rent of premises, wear and tear of machinery, interest of capital, &c. has been 4 4-7 sous per lb. This man ought to know his business—he says he has made thousands of experiments, has seen all, and tried many, of others, and from these has adopted his present plan as the result. The Professor is so satisfied that he has told me when I hear that Mr. C. has adopted some new mode, I will believe that it is better than what he at present uses; all other accounts of improvements, &c. will go with me for nothing. I should say Mr. C. has seven works. His kindness to me has been remarkable, I dine with him to-morrow in company with the Professor and his friend. I have many results and calculations made here which have been given me by the Professor, (who has spent twelve days at the works) which I could not have obtained for any money, but which must have cost him a great sum. Mr. C. ridicules the idea of making refined Sugar at the same establishment at the same time according to the poetry of the times. He thinks to produce brown sugar is quite sufficient for one man and one process, and ought else would impede. His steam engine is 9 horse power, 111 horse power then goes to evaporate, heat drying rooms, &c. Now the process of the manufacture of Sugar as well as the proper cultivation of the plant, I shall, I feel, be fully competent to.

I wish to be enabled to expend a small sum in procuring models of some and information on others, which I shall not find myself competent to until I hear from you. It seems as though things are determined to turn out to my advantage. When the real authors of all the success in sugar making first came here, they brought with them a young man as an Engineer; he is in this town the head of an immense establishment for the preparation of machinery for the Sugar business, and to him I have been introduced by the kindness of another gentleman, to whom I brought letters from Paris; on my deploring the cost of the machinery in present use, he showed me the drawings of a set of his own invention, for which he is about to take a patent; he will be prepared to describe them fully to me in a short time when I shall immediately communicate the result.

I find that the seed which I have sent you is of the true Sugar kind; pray get it all sown and request that it may be kept quite clear, that we may do ample justice to this our first essay. The roots grow large here upon land of the first quality, a fine deep red loam; I shall be able to introduce a system of management which is truly excellent. Here is a saying, "the Beet culture is at the foundation of all good husbandry," and so it is: the best crops in the country are raised after one, two, three, and even four crops of Beet, which are not dunged, for, generally, they

do not exhaust the soil, but their autumns are terribly against them in taking up and housing, compelling to leave them in the fields in pits where they are not protected by any thing but a covering of earth from the winter's rains. Fifty pounds of the cake mixed with one pound of oil cake are sufficient for the keep of ten sheep for a day, given to them at twice, so that 100 lbs. of beets, value 25cts. give 6lb of Sugar, 4 lbs. of Molasses and 25 lbs. of Cake, and sufficient food for fattening five large sheep per day.

ARRAS, April 4, 1836.

Dear Sir—Pardon me if I tease you with my frequent letters, but the fact is, I hear so much of Beet Sugar, and see so much of Beet Sugar, and eat so much of Beet Sugar that you must not wonder if I return to you in the shape of a *Marmalade*. I believe I told you in my last letter that I was setting off for Lisle, Valenciennes and neighborhoods; my main object was to ascertain where was the best system of Sugar making practised that I might be able by observation to know which to prefer; but I had another end in view, namely: to find out where it was that refined sugar, loaf sugar, was made from the Beet by a single process; every one who knew nothing of the matter assured me it was done somewhere, while all the manufacturers declared the thing was impossible; still I was determined if possible to hunt it up, and at Famars in the neighborhood of Valenciennes, I found a very large manufacturer who was absolutely making beautifully white sugar from the Beet, by a simple process; and although he is selling it at a price two cents only below the refined sugar, yet it is, after all, *powdered sugar*, and by no means loaf sugar; when I told him what I had been led to expect, he declared it to be impossible, by no means to be desired, and totally incompatible with the profitable preparation of sugar in the brown state, which requires the most incessant care and circumspection while in process, and is of a magnitude sufficient to engross all the time and talent of the most industrious. I have therefore been pursuing an *Ignis* but not a *fatuus*, for I have added exceedingly to my knowledge and experience, but not one jot to the conviction which I have before entertained, of the facility with which sugar from the Beet might be prepared to any extent; I am therefore returned to Arras to study the art at the finest establishment in France, and where they have a sufficient quantity of the roots remaining for another week's crushing—I hope no more. At Valenciennes and the neighborhood there were, three years ago, thirteen sugar manufactories; now there are sixty-four! Land which was worth 500f. an arpent, will now bring 1200, labor has very much risen, and never in any country did I witness such excellent farming. The residuum from the sugar houses is extremely rich, as a manure, and this they are now spreading on their young crops of clover, which are prodigiously flourishing; they do not manure for the Beet, but for the succeeding crop, and one half the expense of hoeing and cleaning the Beet is charged to the succeeding crop, which is so much benefited by the operations. The drill which they use, Crespel's, sowing 8 lbs. to the acre, is a most valuable instrument for the lands of America. At a manufactory in Valenciennes, conduc-

ted by a farmer, who is also a Brewer, a wine merchant and a distiller, I saw some very good machinery, which crushes 50,000 lbs. of Beet in 24 hours; at another they crush 70,000 lbs. while a third crushes 75,000 lbs. evaporating all the juice and crystalizing all the sugar therefrom in 16 hours only. 100 lbs. of beet yield 85lbs. of juice. The brewer purchases beet root for 1f. per 100 lbs. and sells the pressed cake, for oxen and sheep at 5cts. per basket, about half a bushel: on the other side of Valenciennes, at the distance of a few miles, I was introduced to a person whose premises are enormously large, I saw in one stable 50 large ploughing horses, 7 saddle-horses in another stable, 30 fating oxen, which have nothing but the cake and straw to feed on, and two of the largest oxen I have ever seen for many years, finishing off with cake mixed with oil cake, a most capital food; his sheep were feeding on the cake, but they were a breeding flock; his beet roots were very fine, and had been preserved from the frost, much better than those of many of his neighbors; he calculates that, in good season, the beets yield 10 per cent of saccharine, say six of crystalized sugar, 4 of molasses, and one of the molasses contained in the cake. Now all the manufactories which I had yet seen were very large, and conducted at an expense of machinery truly astounding; this I was regretting to a person in this town, who told me there was a curious man residing in one of the back streets, who had made sugar this winter, with machinery of his own invention, and almost by the labor of his own hands; he took me to see his works, but he had finished crushing; I found him a native genius; he told us he had not the means to purchase the expensive machinery, still he had determined to make sugar, and so he did: his premises are small, and his works entirely without steam; his crushing mill is driven by horses, which he feeds upon the cake, and he hires land ready prepared for the beet of the neighboring farmer; thus he has every disadvantage, and yet, in this way he made 100,000lbs. of sugar from the 3d Sept. to the 21st of March (I think he said) and intends to make 200,000lbs. next year. It is curious to see his machinery after being so much amongst steam engines, and a power of 120 horses, &c. but much of it might be adopted for the use of our farmers. He has given me permission to make drawings of the whole, and I mean to off coat and work with him at crystalizing his molasses, the most difficult process by far. * * * But the cultivation of the beet embraces three grand and distinct objects; 1st, the making of sugar, 2d, the feeding of cattle, 3d the improvement of agriculture or rather of husbandry, either of these is of vast importance: together they form a whole, which I have no fear about, let competition come from what quarter it may. * * *

One thing is certain, all the Continent is preparing to make Sugar from the Beet, and from hence to Belgium the country is covered with it and Sugar-houses; in many places between Valenciennes and this, I counted six or eight of these large buildings together, and at one place there were actually twenty in sight at one time! This says something—what is it? * * *

At Valenciennes, a gentleman is erecting an immensely large building as a Refinery for Beet Sugar—he will refine two millions of pounds per year; he politely showed me the works, and invited me to visit him again, when all is in operation, which I intend to do, as this part of the business may eventually be of importance to us. There are many very large Sugar-houses near Lisle, which I am to see after I have finished here; they will not then be crushing, but working up molasses. I can then see their machinery, which is almost different in every manufactory which I visit, especially the arrangement.

Tuesday, 5th of April.—I have now spent a long day at Mr. C's noble manufactory. Indeed I know not how to express what I feel.—One thing is quite certain, the manufactory will soon be planted in America by some one, and be followed up by hundreds.

* * * * *

The land must be healthy, not a wet subsoil, for if it be so, although it might produce the finest crops, they would rot during the winter to a certainty.

My friend—he of the small manufactory—will enable me to do all that is necessary for our farmers, but they must not expect to work at such a profit as is done by the improved machinery. But I find, after all, I must purchase the Drill. I have spent sometime to-day examining its parts, and the more I see the more am I satisfied it would not be in my power to do justice by a model either to it, to myself, or to the land of my adoption. It is to be taken to pieces and packed more snugly; but whatever be the cost or the labor, I am willing to debit it with the whole with no fear for the result: you will see it is cheap too.

* * * * *

If I stay I shall witness much of the cultivation of the crop of Beet, and probably some other crops that might be advantageously transported to America.

ARRAS, 22d April, 1830.

JACOB SNIDER, Jr. Esq.:

Dear Sir:—Your welcome letter of 23d March I have received, and am truly thankful that all our friends are in health; will they accept my affectionate and grateful remembrance. By this time you will have received several letters from me on the subject of my mission. I have said that the Beet root sugar business is becoming of the greatest importance to the whole continent; as a proof that it is so, there is not a coppersmith or iron founder in this department of France who has not more orders for machinery than he can execute. One in this town who employs 300 workmen in copper, brass and iron, has orders for two years to come chiefly in the sugar machinery for foreign countries. I have also said the success attending the fabrication has in a great measure been owing to the encouragement held out by the government who have offered premiums for the best modes of preparation, and in this they have been joined by the scientific bodies in France and other countries. Thus far all has been well, and no one can calculate the good that has been effected by this branch of Agrico-manufacture; the face, both of the country and its inhabitants has been changed, and industry and

happiness has been the result; but now the government is about to work a revolution, which like all others that have taken place in this country, aims at too much; it must pull down before it can repair. A tax is proposed to be laid upon Beet Sugar, which will in its consequences as effectually ruin the manufacture as that has been supported by the favor of the same government, for it is not possible for one manufacturer in ten to observe the restrictions to which all are made subject. In the first place every manufactory must be enclosed by a high wall built at the expense of the proprietor, and to have but one door of entrance, just within which a house is to be prepared for the residence of Excisemen, who are to be on duty here day and night, and to have the supervision of the concern; every man who makes 100,000 kilogrammes of sugar is to pay these Excisemen 200 francs per annum for their support; 150,000 kils., 3,500 francs, and then comes the primary tax of 15 fr. per kilogramme, on all sugar that is made.—Now what is the object of the Government? Is it to assist the colonies? to levy money in the way of a tax? or to ruin the Beet Sugar trade? If it be the first, let them reduce the duty upon Colonial sugar as is proposed, to which there is no objection; if the third, the plan which they propose will serve their purpose most completely. Now a great proportion of the manufactories are erected where they could not be surrounded by a wall, as they are attached to other buildings, to remove those is quite out of the power of the proprietors, who have in many instances expended a fortune in their erections and fillings up; these therefore must be abandoned, as must all of those of small extent, who could not if they would, afford to keep the attendants out of their slender business; many others would quit a pursuit fettered with such odious exactions. It is true some of the large manufactories might be continued, for sugar would raise in price in consequence of a scarcity in the market; the result however, would be, the people would be debarred, as formerly of the use of it. I have been led to this subject by your remarks that the Island of Guadaloupe has petitioned to be permitted to trade elsewhere than to France; but this, that Island has long done, and permission has not been given; nor will it be necessary if this tax be levied: but in the event of their being so permitted, how shall we in America be affected by it? would sugar be permitted to be introduced to the destruction of our manufacture? From what I have seen I am not afraid to compete with the cane, acre for acre, for it is not the mere article of sugar that is of importance, or rather of the greatest importance; it is the spirit of industry, of happiness,—of beef and mutton, if you will, that it engenders into a country, which is of far greater consequence. Permit me to transcribe from one of the papers some remarks which are I think peculiarly applicable to this subject. "However desirable it might be to preserve or to favor the Colonies, the time of their exclusive supply of the market with sugar is gone by; the species of cultivation naturalized in thirty-six departments of France is well worth the produce of three Islands lost in the bosom of the ocean. To pre-

fer the latter to the former is about as reasonable as to adhere to the use of bows and arrows after the invention of gun-powder. The making of Beet Sugar, for which the population of France has shown a wonderful aptitude, is a kind of *God-send* that should be taken advantage of, for the uniting together of agricultural and manufacturing art; the whole system of the law for imposing duties on Beet Sugar is bad, it starts from false ideas, and leads to the most lamentable results."

I am aware, however, that the questions of free trade, like that of the currency, is to be handled delicately; I am not competent to the task and must leave this knotty point to those who are. I shall be capable, however, to make Beet Sugar on my return; and if he who made two blades of grass grow where but one grew before, deserved well of his country, may I hope to enjoy that luxury on my return. The present season is remarkable for having its crushing process extended to an unusual length, which has given me advantages which I could not else have enjoyed. We are now busily engaged with the Molasses of second and third qualities, and I visit two manufactories for the purpose of initiation into this important branch of process; I am also farming and planting beet roots for seed, as well as preparing the material for clarifying at Mr. C's mills, at a short distance from the town. Mr. C. has two farms near, both of which I visit; he will have 400 acres of Beets on these this year; here are many hundred acres of wheat after Beets, clean as a garden, but the rotation is not good; spring corn is preferable, with seeds, and so Mr. Walker will say, I know. I went to inspect the large sugar house of Monsieur the Deputy last week; I had a letter of introduction to him from the Mayor of Boulogne, he was absent on his duty at Paris, but his lady received me graciously, giving me a letter to the manager of the works; he was not present, so I reserved the letter, to show you the warmth and kindness which I experienced from all. The works cost £12,000, and expend the steam of 90 horse power, but the principle is not good and they work to a great disadvantage; several of their boilers cost 2,000 francs each. They keep 40 horses and mules, and were engaged in sowing Beet seed with Mr. C's drill; which I should say drills five rows at once, harrowing in and rolling the seed at the same time. In a few days I am going to Valenciennes, to see a manufactory belonging to a farmer who has received the silver medal from the Society of Arts in Paris, for machinery by which with the help of his own family, he makes 50 pounds of sugar a day. I have heard also of two other manufactories there who have improved machinery. But it is in this part of the country where they grow immense quantities of the white poppy for the oil. It is used instead of olive oil, and is sent to Paris and elsewhere to mix with that, and goes from that all over the continent as the best olive oil. It is a very profitable crop, is cultivated with the greatest ease, and harvested most cheaply, coming ripe in about three months (some say two.) I visit two crushing mills, and am astonished to find that the produce of oil is 25 per cent from these insignificant seeds. One of the mills is on a very grand scale; the machinery in one

room cost £4000, but it is by no means necessary. I go to-morrow to see a wind mill, where the same work is done to profit. The poppy is cultivated on exhausted soil, without manure; such yielding most oil.

The seed is drilled, and kept clean, and the capsules when ripe are shaken into cloth spread upon the ground; and in one hour after, the oil is made and fit for the market! This then is the crop for us; the plant flourishes well in light soils. I have this day despatched to Havre, to the care of Messrs. Wells and Green, a box containing 23 lbs. brown sugar, 1st and 2d quality, *made under my inspection*; 6 lbs. of white powdered sugar of great purity, made from the beet at Famars, near Valenciennes; two bottles poppy oil of 1st quality as samples, and two gallons of poppy seed of the true species, for sowing this season, which will yield seed sufficient for a good breadth next season. Will you disseminate this poppy seed very extensively, that we may judge of the proper soil, and the climate best suited to its growth?

Extract of a letter from a gentleman in London, dated March 30th: I enclose a letter from Mr. Pedder. He feels very sanguine. Has sent beet seed per Havre packets. He is very anxious to purchase the *seed drill*, about £20, and proposes having a model made; he considers it a highly valuable machine. I purpose writing to him to say that if he still entertains this opinion, and a model will not clearly put you in possession of its merits, I will venture to authorize his drawing on me for the amount. Mr. Pedder seems very intelligent and assiduous, and has been highly favored by circumstances. Dr. B. gave him very useful letters, and he met at Arras, a Prussian professor and chemist, with a draughtsman, in pursuit of the same object, who had nearly finished his inquiries and gave him the benefit of them, also an engineer sent there by Messrs. Taylor & Co., and who is giving him every information. He says the machinery is expensive and powerful. Mr. Pedder will remain in that neighborhood some time. I think you were fortunate in selecting Mr. Pedder, and he hopes to succeed.

[From the May number of the N. Y. Farmer.]

CASHMERE GOATS.—We were invited a few days since, by Mr. J. Donaldson Kinnear, of Albany, to view a Cashmere Goat. Mr. Kinnear, through the aid of relatives in France, purchased a pair of these beautiful animals, from a gentleman who owns the only flock in France; and they were brought from Paris to Havre in the Diligence, and there put on board of one of the packets, but from some cause, the voyage was too much for the buck, which died, as well as the young kid, which was added to the family on the voyage. The doe, however, survived: and although very lean, is a beautiful animal: being, as we are informed, the *first ever imported into this country*, will, we hope, be the first of numerous flocks which will in a few years cover our hills; and we trust Mr. Kinnear may soon replace his loss, and be successful in rearing a flock which may be profitable. Why may we not in a few years, manufacture Cashmere shawls, as well as silk? We MAY—and shall do it—and com-

pete with the foreign manufacture in this as in every thing else we undertake.

NOVEL IMPORTATION.—Five large African male asses of a nearly milk white color, were on Saturday landed from the brig Commaquid, which arrived here on Friday from Gibraltar.—These animals are altogether unlike in appearance to the English ass or donkey, one of which may occasionally be seen here, and which is a diminutive little animal, and of very little use as a beast of burden. The African ass is on the contrary as large as a middle sized horse, and has been, as far back as the days of Scripture, an animal much prized for its useful qualities in Asia and Africa.—*Journal of Commerce.*

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURBED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1.50 per lb.

R. SINCLAIR, Jr.

aug 2

Light, near Pratt street wharf.

VALUABLE ESTATE AT HYDE PARK, FOR SALE.

THAT Valuable and well-known Country Seat and Farm, at Hyde Park, Dutchess Co. N. Y. owned and occupied as a country residence by the late Dr. David Hosack, consisting of about 750 acres of Land, part of which is in a state of high cultivation, and part woodland. The Mansion is large, commodious and well built, and is admirably adapted for a country residence, the Stable is built of Stone and both a useful and ornamental building, unsurpassed by any thing of the kind in this State, the Barns and out buildings are very extensive and well built.

The natural beauties of Hyde Park are so universally admitted to be unsurpassed, that a particular description need not be given in an advertisement. In a pecuniary point of view the most valuable part of the property is the stream of water which runs through it, and belongs to the estate; it is capable of being made to yield a large income, either by renting mill sites, or by erecting and renting mills. The fall is so great from the entrance of the stream into this property, to its termination at the Hudson river, that the water can be used to great advantage from one level to another. On the river is a large dock, well adapted for the building of vessels, and adjoining it a landing, where the different steamboats touch and which rents very readily.

There are several houses and mills occupied by different persons on the property, which are rented without difficulty; the income derived from these is at present nearly three thousand dollars per annum. The village of Hyde Park has been increasing latterly, and one or two tow boats leave the landing weekly.

The distance from New York is about 86 miles, or seven above Poughkeepsie. Any gentleman who might purchase the whole property, can, without difficulty, sell such parts of the estate as he may not wish to occupy, and so the water power, and still retain a magnificent country residence at a comparatively moderate price.

For further particulars and terms, enquire of Dr. A. E. HOSACK, No. 49, Warren street; JACOB HARVEY, No. 30, Pine street, and of

JAMES BLEECHER & SONS, 13 Broad st.
July 26 2m

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior in points. His price is \$300.

July 11

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	
CATTLE, on the hoof,	100lbs.	7 00	8 50
CORN, yellow,	bushel.	80	83
White,	"	80	83
COTTON, Virginia,	pound.		
North Carolina,	"		
Upland,	"	18 1/4	20
Louisiana 19—Alabama	"	18	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.		1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 00	9 50
Do. do. baker's,	"		
Do. do. Superfine,	"	7 75	8 00
SuperHow. st. in good de'd	"	7 75	7 87
" " wagon price,	"	7 50	7 62
City Mills, extra,	"		7 87
Do.	"		7 87
Susquehanna,	"	7 75	8 00
Rye,	"	5 25	
Kiln-dried Meal, in hhds.	hhd.		19 00
do. in bbls.	bbl.	4 00	4 12
GRASS SEEDS, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 75	3 25
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.		20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 75	8 25
Slaughtered,	"		
HOPS—first sort,	pound.	16	
second,	"	14	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"		
OATS,	"	40	42
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.		3 25
Ground,	barrel.	1 50	
PALMA CHRISTA BEAN,	bushel.		
RAGE,	pound.	3	4
RYE,	bushel.	106	112
Susquehanna,	"		
TOBACCO, crop, common,	100 lbs	4 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrapper, suitable	"		
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"		
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	1 75	
Red,	"	1 50	1 70
WHISKEY, 1st pf. in bbls. }	gallon.	35	39
" in hhds. }	"	35	
" wagon price,	"	31	
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	
To Wheeling,	"	1 50	
WOOL, Prime & Saxon Fleeces, ..	pound.	washed. unwashed	
Full Merino,	"	55 to 63	30 32
Three fourths Merino,	"	48 55	28 30
One half do,	"	45 48	26 28
Common & one fourth Meri.	"	40 45	26 28
Pulled,	"	36 40	26 28
	"	38 40	26 28

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	16	17
Shoulders, do.	"	12	
Middlings, do.	"	13	13 1/4
Assorted, country,	"	11	
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 75	
CHOP RYE,	"		1 87
EGGS,	dozen.		12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	
No. 2,	"	9 50	
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, \$8.—No. 3	"		5 25
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	15	

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.	
Branch at Baltimore, do		Farmers Bank of Virginia	2a2
Other Branches, do		Bank of Virginia,	do
MARYLAND.		Branch at Fredericksburg	do
Banks in Baltimore, par		Petersburg,	do
Hagerstown,	1a	Norfolk,	do
Frederick,	do	Winchester,	do
Westminster,	do	Lynchburg,	do
Farmers' Bank of Mary'd, do		Danville,	do
Do. payable at Easton, do		Bank of the Valley, do	
Salisbury, 5 per ct. dis.		Branch at Romney, 1	
Cumberland,	2a	Do. Charlestown, do	
Millington,	do	Do. Leesburg,	do
DISTRICT.		Wheeling Banks, 3 1/4	4
Washington,		Ohio Banks, generally 3a	3 1/2
Georgetown, } Banks, 1.		New Jersey Banks gen. 1 1/2	2
Alexandria,		New York City, 1a	
PENNSYLVANIA.		New York State, 2a	3a
Philadelphia,	1a	Massachusetts, 2a	2 1/2
Chambersburg,	2a	Connecticut, 2a	2 1/2
Gettysburg,	do	New Hampshire, 2a	2 1/2
Pittsburg,	2a 2 1/2	Maine,	2a 2 1/2
York,	1a	Rhode Island, 2a	2 1/2
Other Pennsylvania Bks. 1 1/2	2	North Carolina, 3a	3 1/2
Delaware [under \$5] 3a	4	South Carolina, 3a	3 1/2
Do. [over 5] 2a	2 1/2	Georgia,	3a 1/2
Michigan Banks,	5a	New Orleans,	6
Canadian do. 5a			

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

July 5 2t

R. SINCLAIR, Jr.
Light near Pratt st. wharf.

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper. June 28

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

DURHAM STOCK FOR SALE.

THE Editor of the Farmer and Gardener has for sale, at his residence 2 miles from Baltimore, on the Philadelphia turnpike road, the following full bred improved Short-horn Durhams.

Bull *Brilliant*, a large sized animal of the Improved Durham short-horn breed. He is white with red spots, and has a thin and most delicate skin of the colour of cream, evidently evincing his superiority for the dairy; he has sired several animals of reputation; one of his calves the last spring weighed 84 1/2 pounds, when taken from its dam. He is perfectly docile. His price is \$300. He was got in England, and calved in Frederick county, Md. on the 12th May, 1829. His dam was Matchless, got by Favorite, (purchased at the sale of the late R. Colling, a celebrated breeder) son of Favorite, dam by H. Allison's gray bull, sire Orlando, that died on the passage from Liverpool, out of Rosina, from Yorkshire, which bull gained the highest prize premium of 10 sovereigns at a cattle show in Manchester, England.

Until disposed of, this fine bull will stand at the residence of the editor of this paper at \$5 per cow, and as an inducement to those who may have cows needing his services, the editor will obligate himself to give \$15 for any female calf which may be borne to *Brilliant*, when 6 week sold, whose dam is a deep milker.

Also, a white and red Heifer, a pure and full bred improved short horn, of beautiful proportions and fine growth. She was calved 9th June, 1834, dam Blossom. Blossom out of Matchless, a full bred improved short-horn cow, got by Favorite, son of R. Collings Favorite, whose dam was by H. Allison's gray bull, sire Orlando, a celebrated improved short-horn bull, which gained the highest prize premium of 10 sovereigns at the Manchester cattle show.

This is a most promising animal, and is now in calf to that fine bull *Brilliant*, and is the grand daughter of that great animal Emperor, raised by the hon. Charles A. Farnitz, of York, Pa. which weighed in September, 1825, when *thin* in flesh, 3710 lbs.!

HE HAS ALSO FOR SALE,

That celebrated and beautiful full bred improved short-horn Durham Cow, raised by that distinguished and sagacious breeder, John Barney, Esq. which was so admired at the fair last fall. She is of a fashionable roan color, of silky hide and buttery skin, and as a proof of her goodness as a milker, the editor would remark, that she gives, when fresh with proper treatment, 16 quarts of milk per day.

Besides these fine animals, he has the following on commission for sale, viz.

That thorough bred improved short-horn Durham bull *Superior*—he is a beautiful roan, was bred by Stephen Williams, Esquire, of Massachusetts, and was calved July, 1831.

Superior was got by Frederick, dam Yellow Rose by Young Denton, (963)

g. d. Arabella (imported) by North Star (460)

g. g. d. Aurora, by Comet (155)

g. g. g. d. do by Henry

g. g. g. g. d. by Danby, (949)

Frederick was got by Wye Comet

Dam Tulip by Young Denton (963)

g. d. Tube Rose 2d (imported)

g. g. d. Tube Rose

g. g. g. Tulip Comet (157)

g. g. g. g. d. Cherry by Ladrone.

Arabella and Young Denton were sent out by Samuel Williams, the American banker in London, to his brother in Massachusetts to improve the cattle of this country, and, says our informant, never did a man hit more luckily; for the stock from young Denton have not only proved of fine size and form, but deep milkers.

Superior has two crosses per Denton, and is a very square, compact built animal, straight on the back and legs, broad on the loin and hips, chest deep and broad, short and small in the leg, rather heavy in the head and neck. So far he has proved a sure and good stock getter. \$50 have been refused for his calves by native cows. His price deliverable in Baltimore is \$300.

Also, a Hampshire Down Buck, 7 years old—price \$100—and
A South Down Buck, 1 year old this spring—price \$50.

All letters upon the subject of the purchase of either of these animals, must be post paid. July 19

CONTENTS OF THIS NUMBER.

A fine sample of wheat—work for August—a preventive of the wheat fly—an account of an extraordinary cow—great product of a Kentucky farm—mode of renovating fruit trees—interesting account of the state of the Beet sugar culture in France—importation of cashmere goats—do. of milk white asses—advertisements—prices current, &c.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 15.

BALTIMORE, MD. AUGUST 9, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 9, 1836.

THE HORSE MOWING MACHINE.

We attended on Monday week last, by invitation, to witness the operation of the Horse mowing machine invented by Mr. Huzza, of Cincinnati, Ohio. The theatre selected for its operation was a field of oats belonging to Dr. Hitch, situate in the northwestern part of our city, containing about six acres. The persons collected together to see this novel innovation upon old established customs were not numerous: with those, however, who did attend, the principle of curiosity was, as it was reasonable to expect it would be, actively alive; but it was soon destined to be arrested in its gratification; for after the enterprising inventor of the machine had twice made his way around the field, its owner stopped his further progress, urged to the adoption of his course, as we were informed, by the fear that a part of the company would injure his grain by following the implement, and from the circumstance of the stubble being cut too long. In common with those present, we regret that reasons sufficiently cogent existed in the opinion of the proprietor to produce the result we have mentioned, as the disappointment affected alike the inventor and those who at considerable trouble, under a scorching sun, had convened to witness the experiment. Contenting ourselves with the remarks we have made with respect to the cause of the stopping of the work, we will make a passing observation or two in regard to the work itself. The machine was drawn by two horses, and moved at a smart trot, cutting the grain as it went with considerable cleanliness, as much so, probably, as could have been done with cradles, with the exception, that the stubble, as we have before premised, was left too long, being about 6 inches in length; the inventor of the machine, however, assured us that he could have lowered the cutting knives to

3 inches. It may be but justice to observe that the field was rough and cloddy, and presented a very uneven surface to act upon, which may account in part for the height at which the knives were set. So far as our own opinion may be entitled to consideration, we believe the machine better adapted to level fields than broken ground, and we have no doubt at all that on the Eastern Shore of this state, in Eastern Virginia, and other portions of our country where grain is cultivated on large even fields, it would be found truly useful, and that it will be found an object with the wealthy proprietors of lands in those sections of country to procure one. It certainly cuts with great expedition, and we should suppose, from what we saw, that it would be able to mow twenty or twenty-five acres a day. Mr. Huzza assured us, that he had given great satisfaction to the members of the Agricultural Board of Talbot County on the eastern shore of this State, before which body he had operated with his machine, and we sincerely trust this distinguished association may publish an account of his labors in that quarter, for from the intelligence and standing of its members their opinion will be held in high estimation in every quarter where correct information is duly appreciated.

THE DROUGHT.

It is now about four weeks since we have been blessed in this part of the country with any thing like a good rain. We have had occasional showers of a few minutes duration, but not sufficient to penetrate to the roots of the growing vegetation; the consequence of which will, we fear, prove disastrous to the hopes of our farmers. The late potatoes have almost uniformly failed to an alarming extent, and unless we should speedily be blessed with rain, the growing corn must be greatly diminished in quantity; for as the earlier planted is now in silk, and the earth is parched almost to a powder, it is impossible that the ears can fill unless God in his mercy, should speedily send us a shower sufficiently potent to moisten the earth, so as to enable the roots of the plant to imbibe that nutriment so essential to the maturity of the grain.

We were favored with a rain on Friday night, which continued at intervals through Saturday;

but we fear that enough did not fall to answer the demands of the growing crops.

We have inserted in our present sheet the commencement of a most interesting article upon the culture of the Beet Root and its manufacture. The subject is one of profound concern to the people of the United States, and we rejoice sincerely to find that it is in a fair way to receive the consideration which it so richly merits. Honestly indulging in the belief of its importance we shall publish every thing deserving of notice that we can lay our hands upon, and shall otherwise do every thing else in our power to advance the culture and enlighten the minds of agriculturists both upon the culture of the beet and its manufacture into sugar.

THE TURNIP FLY.

[From the New Castle Gazette.]

MR. CAMP:—I send a few extracts from the Encyclopedia Britanica, which may possibly be of service to you.

In speaking of the culture of turnips, (or more properly the enemy of turnips,) the author remarks: Turnips, when young, are apt to be totally destroyed by a multitude of little black flies, from thence called the turnip fly. As a preventive of these, some advise the seed to be mixed with brimstone; but this is improper, as brimstone is found to be poisonous to vegetables.—The best method seems to be the fumigation of the fields with smoke of half dried vegetables. For this purpose weeds will answer as well as any. This fumigation must no doubt be often repeated, in order to drive away the innumerable multitudes of these insects which are capable of destroying a large field of turnips.

Some have supposed that the fly is either engendered in new dung, or enticed by it, and have therefore advised the manure to be laid on in autumn preceding, by which it loses all its noxious qualities; while its nutritive ones are retained, notwithstanding these might be supposed liable in some degree to be exhaled by the sun. This method is said to have been ascertained by experiments; and it is added, that another material advantage accruing from autumn manuring for turnips is, that all the seeds contained in the dung, and which of course are carried on the land with it, vegetate almost immediately, are mostly killed by the severity of the winter, and the few that remain seldom avoid destruction from the ploughshare.

The following method of sowing has also been recommended as a preventive of the fly. "About midsummer, take the first opportunity when it rains, or there is an apparent certainly

of rain approaching, to sow your seed; in this case neither harrow, brush nor roll, after sowing. The natural heat of the ground at that season, and the consequent fermentation occasioned by copious rain, will give an astonishingly quick vegetation to the seed, which in a few days will be up and out of all danger from the fly. At all events, sow not till it rains; it is better to wait a month, or even longer for rain, than to sow (merely for the sake of sowing about the usual time) when the ground is parched with heat. By the scorching of the sun, the oil and vegetative quality of the seed are exhausted; and the few weak plants that come up will be destroyed by the fly before they can attain strength to put forth their rough leaves. The fly infests the ground abundantly in dry hot weather, but does no injury in rain. The falling rain will sufficiently wash the turnip seed into the ground without harrowing it in; which instead of merely covering, too often buries this seed at so great a depth, as never afterwards to get above ground."

Remarks by the editor of the Farmer & Gardener on the above.

We have not inserted the above article with a view of endorsing all its opinions, but of giving the public a fair opportunity of judging of the soundness of the views of its author, by exposing to the judgment *all* that he says upon the subject, and of respectfully pointing out what we consider erroneous. We object to the following point made in the article.

We deny that *brimstone* has been found poisonous to vegetables. It is well known and believed that it is the principle of sulphur existent in, and forming a component part of, plaster which gives to that valuable article its meliorating properties; and from experience we can say that we restored a bed of cabbage and cesarian kale plants to a state of vigorous health from one the most sickly and unpromising by the use of a weak solution of soot and sulphur by only three waterings. Our solution was prepared as follows: We placed 1 oz. of flour sulphur (in a bag) and 1 gallon of soot in a 15 gallon cask, which we filled with water, and let it remain until the exhalation was sulphurous, when we watered the plants—then filled up the cask and after remaining until the water was impregnated, we used it as before. This application was repeated thrice and wrought the good effect spoken of above.

There is, indeed, as is observed by the Richmond Enquirer, "so much sound practical sense" in the subjoined, that we cannot get our own consent to insert it without calling the attention of our readers to it. Though addressed to the people of Virginia, its suggestions are equally applicable to many other States of the Union, whose citizens should study the picture

drawn, and act upon the principles and advice therein recommended.

MULTUM IN PARVO.

There is so much sound, practical sense in the following Sketch from the pen of an enlightened Correspondent, that we hasten to lay it before our readers, and urgently call their attention to its dispassionate suggestions. Never in the memory of the oldest inhabitant, has Virginia experienced so disastrous a failure in her Wheat crop. What then, is the best remedy? Besides paying every possible attention to the Corn crop, and providing as far as possible for winter's food, in Beets, Turnips, Ruta Baga, &c. &c., our Correspondent recommends economy in expenditure as an essential auxiliary. But heed and hearken.

FOREWARNED. FOREARMED!

For the Enquirer.

THE WHEAT CROP.

Accounts from all parts of the state agree as to the almost entire failure of the Wheat Crop, and it behooves our farmers, merchants, and banks, to take into consideration the consequence of such failure. The loss of no crop can be so sensibly felt as that of wheat, because it is a more general loss. In some districts we have tobacco as the chief staple; in others cotton; and in others Indian corn: but wheat is extensively cultivated in almost every district. The export of tobacco may annually bring into the State more money, or the equivalent of money, than the export of wheat and flour, but the proceeds fall into fewer hands; and so may be the case as to cotton, if we include the produce of North Carolina sold in our markets. The annual export of wheat and flour, however, has been estimated by a judicious inquirer at an average of about four or four and a half millions of dollars; and, from the best accounts we have, it is questionable whether the crop of wheat this year—considering the quality as well as the quantity—will be more than sufficient for home consumption. But, suppose the export should amount to the value of one million of dollars, we then fall short to the amount of three millions, without any addition to the amount of our other exports—and it becomes a matter of serious inquiry, how this deficiency is to be repaired? Should the merchants import the usual amount of foreign articles, how are they to be paid for them? If the farmers indulge in their usual expenditures, bottomed on good crops, they will be unable to pay the merchants.—This may bring upon the country a ruinous system of credits, and throw the commercial men on the banks for temporary succor. The banks, in turn, will consider how they are to make up this deficiency, when they cannot be sustained by the products of the country, and from the apprehension of losing a great part of their specie, under an unfavorable balance of trade, will be forbearing and limited in their loans. It remains then for the merchants to consider whether they will import less or continue their usual business, and either not dispose of their goods, or sell them on a credit that will not enable them to meet their engagements abroad. Now, the proper course to be pursued in this state of things would seem to be, *diminished importation and diminished consumption*. All prudent communities, like pru-

dent individuals, restrict their expenditures by their means. He who borrows and runs in debt to make a profit from the use of money, often acts judiciously; but what can be said of the discretion of him who runs in debt for the purposes of consumption, under the delusive anticipation of a double crop the next year?—The season is approaching for our merchants to go or send to the Northern towns for their fall supplies. As clear-sighted and prudent men, they will be moderate in their outlays, or they may embarrass themselves, and do infinite mischief to the country. Should the necessary supplies in any instance fall short, they can readily import, from time to time, a sufficiency for the actual wants of the community. They should not allow the spirit of overtrading to get possession of them, the fashionable doctrine, of small profits upon a large business, is not, under all circumstances, sound doctrine. The over-doing business sometimes leaves no profits at all, and it unfortunately happens that he who operates on borrowed means is more apt to push this doctrine to the extreme, than he who relies entirely on his own resources. In the latter case, the loss being all his own, he becomes more cautious, while the trader on borrowed capital may throw the loss on the lender.

These ideas would admit of great expansion, but it would be useless to fill your columns with a labored essay, when a plain suggestion is sufficient to call the attention of those who may feel an interest in it to a subject of no inconsiderable importance at this moment to the whole country.

X.

[From the New York Farmer.]

GREAT PRODUCE OF A COW.

To the Editor of the New York Farmer:

SIR—If you think the following statement of the produce of a cow worth inserting in your valuable Magazine, you can do it.

The cow is of the short horn Durham breed, a twin, her dam having had twins three times in four years; she is a bay, her sister pure white, now in possession of my neighbor Mrs. Post. My cow calved on the 16th of March, her calf remained from her 19 days, raised on the skim milk, until my other cow came in on the 20th of April. The produce of butter was in that time, say 35 days, 54½ pounds, and two butchers, although not sold to kill, pronounced her the best and heaviest calf they had seen that season. I will only observe, I keep but two cows and they are kept and fed in the yard.

Yours respectfully,

THOS. ASH.

The above remarkable account of the produce of a short horned cow is furnished us by Mr. Ash of Westchester county. There are few such, either as a breeder or a milker.

Chickens.—A disease called the gapes, so destructive among chickens, may be prevented, and if not too far advanced, cured by a slight mixture of assafœtida in their food. Four oz. costing 6½ cts. per oz. dissolved in water and mixed once a day in food, is enough for 400 chickens. If people have no sympathy for the sufferings of those beautiful little birds, they can't fail to have some for themselves, if bacon gets much higher.

[From Chaptal's Agricultural Chemistry.]

ON THE CULTIVATION OF THE BEET ROOT, AND THE EXTRACTION OF SUGAR FROM IT.

I feel myself authorized by ten or twelve successive years of experiments and observations upon the cultivation of the beet root, and the extraction of sugar from it, to publish some results which may be relied upon.

As this new branch of industry is capable of being rendered a fruitful source of agricultural prosperity, I shall be pardoned if I enter into all the details which I consider necessary for directing the agriculturist, that he may not try such experiments and commit such mistakes, as often lead to useless expense and are always discouraging.

ON THE CULTIVATION OF THE BEET ROOT.

Beet seed is sown in the latter part of April and the beginning of May, when there is no longer any danger of the return of frost. I have sown it with good success towards the middle of the month of June; it is better, however, to sow it neither too early or too late. If it be sown immediately after the cessation of the frosts, the ground being very cold and wet, the seed does not germinate immediately, and the soil becoming hardened by the violence of the rains, does not admit the air to penetrate, so that if the seed do not decay, the beets come up badly; when sown late, they suffer from evils of another description; the rains will then be less frequent, but the great heat dries up the ground, and those soils that are rich and compact form a crust, which the tender plumbule of the beet cannot pierce. Those seeds which are sown at the right season have to encounter the danger of being stifled by a host of strange plants that spring up with them, and which render weeding very expensive. The most favorable period is that when the earth, although heated by the rays of the sun, still contains sufficient moisture to produce germination and to facilitate the growth of the young plant: the last days of April and the first fifteen days of May generally unite these advantages.

ON THE CHOICE OF SEED.

A good agriculturist should always raise his own seeds: for this purpose he will plant his beet roots in the spring in a good soil, and gather the seed in September as fast as it ripens, selecting only the best and leaving upon the stalks such as are not thoroughly ripe: each beet root will furnish from five to ten ounces of seeds.

When no care is taken in selecting the seeds, and they are sown indiscriminately, not only are many of the beets small, and ill grown, but half of the seed sown do not yield any thing.

Beets vary in color, some being white, others yellow, red, or marbled; there are even some of which the skins are red and the substance white: it is generally known, that seed from a beet of one color does not always produce the like: a field which is sown with the seed of yellow beets alone, will invariably yield some roots of the other colors.

Too much importance has hitherto been affixed to the color; I have never myself observed any considerable difference in the products of the different kinds; however, I cultivate from

preference the yellow and the white, because the process of refining the sugar made from red beets requires a little more time; for although the lime which is employed in the first operation instantly deprives the juice of color, yet it acquires, during concentration in the boiler, a brownish tinge, which the syrup from white and that from yellow beets does not receive.

ON THE CHOICE OF SOIL.

All corn lands are more or less adapted to the cultivation of beets, but the best soils for the purpose are those that have the greatest depth of vegetable mould.

Sandy soils formed by alluvions and the deposits of rivers are also very favorable to the growth of beets, nor is any other artificial manure necessary upon spots so situated as to receive it than the mud which is periodically deposited by inundations.

Beets may be cultivated with good success upon natural or artificial grass lands; but I have always observed, that beets come up badly when sown in the spring upon such lands as had been broken up in the autumn, and ploughed two or three times during the winter: the turf and roots do not in so short a time become sufficiently decomposed; and in order to have good beet roots I find it necessary to raise a crop of oats between the time of breaking up a meadow and sowing it with beet seed: after this I can raise two successive crops of the finest beets. If the soil of a natural grass land is dry, or not closely united, it may be sown with beet seed six months after being broken up; but I have never obtained good harvest of beets from clover lands without having first sown them with a crop of grain: In these lands the beets have always been better the second year than the first.

Dry, calcareous, and light soils are but little suited to the culture of the root.

Strong clayey soils are not well adapted to the cultivation of beets; in order that these roots may prosper, it is necessary that they should grow in a loose, fertile soil, having a bed of vegetable mould of at least twelve or fifteen inches in depth.

Beets prosper to a certain extent in all arable lands, but the quantity as well as quality of the product varies surprisingly with the nature of the soil. Good soil will furnish 100,000 lbs. per hectare, (2 acres, 1 rood, 35 perches English;) a poor soil only from 10,000 to 20,000 lbs.

Upon several hectares of lands of very different nature which I put in cultivation each year, the average rate of production is 40,000 lbs.

The value of beets cannot be calculated by the gross weight; the large roots, which often weigh from ten to twelve pounds, contain a large proportion of water, and the specific gravity of the juice extracted from from such will not be more than 5° or 6° of the hydrometer (= 1.036 to 1.044) whilst that of beets weighing a pound less will rise as high as 8° or 10° (= 1.060 to 1.075,) so that the juice of the last contains in the same volume nearly twice as much sugar as does that of the first, and the extraction of it is easier and less expensive, because less time and fuel are required for evaporation. I therefore prefer in my manufactory, beets which weigh one or two pounds, though the

soil upon which I raise them should not yield me more than from 25,000 to 30,000 lbs. per hectare.

ON THE PREPARATION OF THE SOIL.

Generally speaking, I cultivate beets upon all such lands as are appropriated for sowing grain upon in the fall. The lands I prepare for receiving the seed by three good tillings, two of which are performed in the winter, and one in the spring: by this last ploughing the dung which is thrown upon the ground after the second, is mixed with it: the quantity of manure employed is the same as if the ground was to be immediately sown with wheat.

When the cultivation of the beet was less known than it is at present, it was thought that the use of dung rendered the root less rich in sugar, and more disposed to produce saltpetre; my own observations have never verified the truth of this opinion, nor have I ever perceived any other difference than that of size between beets raised in ground dressed with barn yard manure, and those raised in a soil not so prepared. That which has given rise to this error is the greater quantities of sugar contained in the same volume of small beets, in consequence of the more concentrated state of their juices.

ON THE MANNER OF SOWING BEET SEED.

Beet seed may be sown in either of the three following methods. 1. in a seed plot: 2. in drills: 3. broad cast. The first of these ways offers to the agriculturist the advantage of requiring much the least time at a season of the year when every moment is precious: the young plants may be transplanted in June before the commencement of the hay harvest, so that the cultivation of beets need not in any way impede the ordinary labors of the fields. There are however, some serious inconvenience attendant upon this mode of sowing; the first of these is the care that is requisite in pulling up the young plants so as not to leave behind a portion of the root; for if a tap root be broken off, it ceases to increase in length, but grows in circumference, and throws out radicles from its surface in every direction. The second difficulty is, that if in placing the root in the earth its long and very slender point be bent upward, its growth in length is frustrated in the same manner as if it was broken off. It is however, advisable for the farmer to sow a portion of his best seed in a seed plot, in order that he may be able to fill the vacancies which will always be found in fields sown by the other methods.

But seed may be sown broad-cast in the same manner as grain, and in this case sowing may be commenced as soon as the ground has been well prepared by ploughing and rolling. The seed is covered by having a harrow passed over the ground in two directions, crossing each other. This method requires at least from eleven pounds and a half to thirteen pounds and a half of seed per hectare.

This last process is the one most generally made use of, and the one which I myself employed during seven or eight years; but I now give the preference to the method of sowing in drills, as being more sure and more economical. For this purpose, as soon as the ground is prepared, I trace upon the surface, by means of a har-

row armed with four teeth, distant about eighteen inches from each tooth, furrows of an inch in depth; the seed is dropped into these furrows at intervals of sixteen inches, by women or girls who follow the harrow, and who cover the seeds with their hands. Each woman can sow in this manner, six or eight thousand seeds in a day.

The quantity of seed necessary in this method, is a little less than half what is required for sowing broad cast, and the weeding of the beet is much easier, and by no means so expensive.

The method of sowing beet seed which has been adopted in England, can scarcely fail of being successful: it consists in opening a deep furrow, in the bottom of which is placed a portion of the manure which is to be used on the land: a second furrow is then drawn parallel to the first and so near to it that the earth thrown up shall cover that over; the second trench is prepared in the same manner as the first, and so on: the seeds being sown immediately over the manure. By this disposition of the ground the roots easily penetrate through the loose soil to the dung, which retains its moisture, and furnishes the plants with nourishment.

But whatever mode may be followed in sowing beet seed, it is necessary to observe the three following rules: first, to sow only new and naturally fertile soils; second, not to place the seed at the depth of more than one inch; third, not to sow the seed too thickly.

ON THE CARE REQUIRED BY BEETS DURING THEIR VEGETATION.

There are few plants that require more care than beets: their development is greatly impeded by the neighborhood of other plants, and if the soil be not light and loose around them, they languish, turn yellow, and cease to grow.

When the beet plants begin to show their second leaves, they must be weeded: if they have been sowed broad cast, this can be done only with the hand or a small hoe or weeding fork; all the weeds must be rooted up and as many of the plants removed as will leave spaces of eighteen inches between those that remain. If the plants are sown in furrows, the plough may be passed between the rows, and the roots of the plants be cleared with the weeding fork. The same operation must be repeated at least twice in the season.

As weeding opens the earth to the free entrance of air and water, the plants may be seen to be benefitted by it: the green of their leaves deepens, their roots increase in size, and their foliage expands.

Since I have sown my fields in drills I have practised passing the plough through them three times in the course of a summer, and at each time I have made thorough use of the weeding fork around the roots of the plants.

Half a day's use of the plough is sufficient for half a hectare, and the rest may be completed in a day by five or six men. I find that I save one half the expense of weeding by employing this method. Each weeding with the fork costs at least twenty francs per acre. The produce of a field which is well taken care of, is at least double that of one which is neglected.

ON THE GATHERING OF BEET ROOTS.

Beet roots are generally dug during the month

of October: the digging should be completed before the commencement of the frosts. When surprised by untimely frosts, if the roots cannot readily be transported to a place of shelter, they may be collected in heaps upon fields and covered over with their own leaves: those that remain in the earth are in much less danger from frosts than those that have been dug.

The time mentioned in the preceding paragraphs is the one most suitable for the vicinity of Paris, and for the centre of France; but as vegetation is more forward in the southern departments, it is necessary that beets should there be gathered earlier in the season, otherwise the saccharine principle may disappear, in consequence of a new elaboration of the juices after maturity. The fact appears to me to have been fully ascertained by the experiments of M. Darraq. This able chymist, in concert with the Count Dangos, Prefect of the Department of Landes, made every arrangement for the establishment of a sugar manufactory. During the months of July and August, he made experiments upon beets every eight days, and always obtained from three and a half to four per cent. of good sugar. Satisfied with these results he discontinued his experiments, in order to devote all his time to the care of his establishment; but how great was his surprise at finding towards the end of October that his beets yielded only syrup and saltpetre, and not a particle of crystallizable sugar.

Generally speaking, beets may be dug as soon as their largest leaves begin to turn yellow. If harvested before arriving at maturity, they wither, wrinkle, and grow soft; the juice is extracted from them in this state with more difficulty, and the sugar does not grain so well.

The leaves, which are separated from the roots as fast as they are taken from the ground, may be left upon the spot and there eaten by the cows, sheep or swine; but they are so abundant that there will still remain enough to serve as a half manure for the land, and it is in this soil, after having slightly ploughed it, that I sow my grains. As the earth has been manured in the spring, and afterwards freed from weeds by repeated hoeings, the corn will grow very large and be very clean; so that the first tillage and manuring serve for two harvests, and the ploughings which are given in autumn to lands appropriated to the reception of wheat or rye, are saved.

[To be continued.]

It will be seen by our advertising columns that Mr. James Moore has associated with him in business, Mr. Richard F. Maynard, and we take the occasion to say from personal knowledge, that we look upon him as an invaluable acquisition to the establishment—that if active business habits, an industry of the most untiring character, upright and honorable deportment, and a perfect acquaintance, practically, with the several branches connected with the business, be any guaranties, the public have every assurance of being well served by the new firm.

TOPPING OF CORN.

We subjoin an article which treats upon the above subject with great ability, and commend its perusal to our subscribers. The question involved is one that has long since been mooted, but like most other matters which may be said to be every body's business, appears to be no one's, and the consequence is, that it is as far now from being settled as it was when it was first started. We have read many essays *pro* and *con* upon the subject, and conversed with many planters who practice the plan recommended by Mr. Clagett; but we must confess, that we have not read or heard any thing lately, so conclusive in its reasoning, and which, at the same time, was so entrenched in the philosophy of nature as is the present paper.

[From the New England Farmer.]

TOPPING CORN.

Notwithstanding the correct theories advanced by many, and the numerous experiments, proving conclusively that the practice of "topping Indian Corn" (Maize) is injurious, yet it is believed that this practice is continued generally, although discontinued by a large portion of the best farmers in New England. The practice, if injurious, would, in a short period, cause a loss of property, in the aggregate, amounting perhaps to millions. That the corn plant should ever have been selected for mutilation, in preference to other vegetables, seems to be an extraordinary circumstance. In the whole circle of American husbandry, there is no plant of higher utility and value, or which excites greater curiosity and admiration in respect to its beautiful appearance and organic structure. The physiological cannot explain how the grass grows, or how this plant springs from a decaying seed into being, and performs all its functions; yet science reveals to us certain facts, as well as the modes in which some of its functions are performed. We know that the Author of nature does nothing in vain, either in the animal or vegetable kingdoms; and that He gave to this plant such peculiar constitution and anatomy, that each part or organ is absolutely necessary to bring it to maturity, or complete its perfection.

The abstraction of any part of it is, therefore, opposed to the wise provision of nature; and, for obvious reasons, checks its growth. It receives a portion of its food and nourishment from the soil, through the medium of its roots, and their sprays or minute fibres, extending several feet from the stalk or stem, which act as absorbents. But the vegetable fluid, received from the roots and propelled upwards, undergoes several chemical actions before it enters the cob, and before it is finally converted into that peculiar food which the green ear requires. Air is as essential to its growth as heat, and supplies a portion of its nourishment. Indeed, some plants derive their whole nourishment from the air. The wide corn blades, like the leaves of trees, decompose carbonic acid, retaining the carbon, and emitting the oxygen. The

blades are, therefore, in some measure, respiratory, and have some slight analogy to the lungs of animals, which retain only that part of the air called oxygen (the vital part,) to improve the state of the blood and give it its red color. We may, therefore, safely conclude that the corn-blade is the organ to prepare or elaborate the sap propelled into it from the stem; that from the blade it returns to the pith or pulpy substance of the stalk; that it next enters the cob, after having undergone several stages of improvement; and that before it is finally received into the kernel, it has been "refined and doubly refined," until it constitutes that rich saccharine juice, which is the nutriment of, and gives the sweet flavor to the kernel. We thus perceive the use of the blades, as well as the pith, the latter extending through the whole stalk. This vegetable fluid circulates through the whole length of the stalk as well as the blades.

Whether the sap, after it ascends from the roots into the blades in which it is elaborated, descends to the roots, according to the doctrine which some distinguished phylologists hold in respect to trees and perennial plants, we confess we have strong doubts. But that there is some sort of circulation, must be conceded. It is probable that the juice, after it ascends, may descend into certain bulbous roots as their tops dry and decay.

Although unable, by actual experiment, to confute the theory, we can conceive of no reason, whatever, why the sap should descend into the roots of animal or perennial plants. "The circulation of the sap," says a learned writer, "is one of the most obscure, though important processes, in the whole vegetable economy." But the fact that it circulates, or flows, or moves through every part of the corn-plant, improving its state, until the final deposit of its richest substance in the kernel, is sufficient to support our main position. If our premises are correct, the conclusion irresistibly follows, that cutting off half the stock with nearly all the blades, while the plant is green and growing, before the ear comes to maturity, must necessarily check the growth. Because a large portion of the organs, essential to its perfection, are abstracted. It is disorganized in respect to its natural functions.—One source, whence it derives nourishment is cut off. The sap from the roots can no longer be elaborated by the blades, and afterwards converted into a richer and sweeter substance. The ear consequently shrinks, the kernel shrivels as it dries, and the result is, as has often been demonstrated by accurate experiments, that by means of the mutilating process, the corn turns out to be not so sweet and palatable for food, less in quantity, and less in weight, than there would have been, had nature been permitted in her own way, to bring it to maturity. Farmers often commence topping the corn as soon as the kernel is glazed over, "begins to turn," while it is "in the milk." This is the period when the ear is in the greatest need of saccharine juice, when all the parts or organs of the living whole, through which action is evolved, and which reciprocally act and re-act, are developing their energies to produce the desired result, the maturity of the ear. And the several parts or organs of the plant are reciprocally dependant upon

on each other for the exercise of their respective functions.

Without the top and the farina, which falls from it, the corn would never grow upon the cob. A silky thread grows out of each kernel, and at the precise time when these threads project beyond the husks, when 'the corn is in silk' the farina falls from the top on to the silk, and through the medium of these threads impregnates each kernel. A microscopic view will disclose a small aperture at the ends of the silk. In this manner, it is well known, that two fields of corn of different kinds, standing at a considerable distance from each other, will intermix when the wind conveys the farina from one field to the other.

The tops and the wide spreading blades have other uses. They serve as a covering to protect the ear and stem from too intense heat of a burning sun on the one hand, and cold winds on the other. They also derive nourishment from gentle rains and dews; and their umbrageous foliage, by being a partial obstruction to evaporation, tends to prevent the soil from parching or drying up. A medium temperature is thus, in some measure, preserved. The genial influence of the solar light upon the plants (without which they would not grow,) is a fact known to all, but not of easy explication. This covering affords also a partial protection against the early frost, to which our Northern climate is subjected. One instance of this I will mention. The last spring I planted about 4 acres of corn upon a low, argillaceous soil, *late in the season*. The piece was well manured, but no manure put in the hill. For a long time the plants appeared less promising than those of my neighbors, who put manure in the hill. But when the roots reached the under-sward, and the nutriment equally diffused, the growth of this was remarkably rapid. The plants being thick set, and of uncommon height, the tops and blades covered nearly the whole surface. The prospect appeared favorable to a yield of 75 bushels to the acre. While other farmers had topped their corn (a practice which I have not adopted,) mine was in vigorous growth, only a small portion being out of danger from the frost. In that state, two successive frosts struck it so severely as to kill the tops and blades. But the ears remained green, and to appearance untouched by frost, and the husks did not adhere to the ear as they do when severely frostbitten. My opinion is, that the frost did no greater injury than the knife would have done, had the piece been topped at that time; and also that had I topped it previous to the frost, the effects of the frost would have rendered it valueless, except for fodder.

Some farmers top their corn in order to force it to ripen earlier. They remove the covering to let the rays of the sun have greater effect upon the ears. And some believe, that by this process they can turn the whole current of the juice into the ear. In respect to the last point, our preceding remarks afford a sufficient answer. Experimental knowledge will convince any one, that the corn will ripen earlier in nature's way, than by adopting the mutilating process. The truth is, that we may safely follow nature, but to change her course, and improve her laws, is beyond the power and capacity of man. The great Author of nature created every plant in the vegetable kingdom, *perfect in its own kind*. It is, there-

fore, the height of arrogance and folly to attempt to improve upon what is already perfect. While by the mutilating process, we increase the quantity of solar light shed upon the ear, we at the same time diminish the quantity of heat, the latter being perhaps more necessary to the plant's growth, than mere light. In autumn, at the usual time of topping corn, more light falls upon an isolated tree in the open field, than upon any one tree in a thick grove, or forest. Yet it is true, that the latter tree has more heat than the former. So in a compact, well-shaded corn-field, the heat is retained, if not generated, more than it would be by cutting away the umbrageous foliage to let in solar light, thus exposing the denuded stalk to the full force of the cold, searching winds of that season. In the spring season, when the plants are small and tender, there is an abundance of light, but such is the low temperature, and their exposure to the winds, that as a natural consequence they often appear feeble and sickly, and slowly increase in size.

We know of no tree or other plant, whose condition would be improved by cutting off its top, or main branches. Should a tree be entirely stripped of its foliage in midsummer, it would surely decay and probably die.—If it bore fruit not fully ripe, the fruit would shrink, and never become palatable. Should the main branches be cut off, its growth would be so stunted, that it would not recover until after several years, if at all. In transplanting trees, young, or of many years growth, modern experiments have proved, that mutilating the tops and the roots, at the same time, is very destructive to the tree; because the branches through which the sap circulates, are organs just as essential as the roots, to the nourishment of the tree.

Another justification assigned for the practice of topping corn, is to gain a greater supply of fodder for cattle. But the fact is, that the farmer, by cutting up his corn by the roots when it has come to maturity, will have a greater quantity of fodder, than he would in the other mode, and he thereby saves much labor. It is admitted, that the stalks cut green, containing more of the saccharine juice, afford sweeter fodder. But if the main object be to raise good corn, that juice should go to nourish the ear.

We could extend our remarks, and adduce other arguments to fortify our main position.—But should you deem these cursory remarks worthy of publication, for the purpose of eliciting public inquiry, or engaging the attention of writers more competent than myself to establish the truth of the theory, and to put an end to one of the most unwise and injudicious practices ever adopted in an enlightened community, I shall not regret this humble effort to promote the agricultural interest.

WILLIAM CLAGGETT.

Portsmouth, N. H. 1836.

LOUISIANA CROPS.—A letter from one of the Western parishes of the State to the New Orleans Bulletin, says:—"I have lately been through all of our Western parishes, and have the pleasure to assure you, that the prospect of the planter, both of sugar and cotton, for a great crop, was never better at this season of the year—the corn crop is also most promising."

COFFEE.

An interesting analysis of Coffee was made by Mons. Cadet, apothecary in ordinary to the household of Napoleon, when emperor, from which it appears, that the berries contain mucilage in abundance, much gallic acid, a resin, a concrete essential, some albumen, and a volatile aromatic principle, with a portion of lime, potash, charcoal, and iron. Roasting develops the soluble principles. Mocha coffee is of all kinds the most aromatic and resinous. M. Cadet advises that coffee be neither roasted nor infused till the day it be drunk, and that the roasting be moderate. De Mosely in his learned and ingenious treatise, states: "that the chemical analysis of coffee evinces that it possesses a large portion of milky, bitter, and slightly astringent gummaus and resinous extract, a considerable quantity of oil, a fixed salt, and a volatile salt. These are its medicinal constituent principles. The intention of torrefaction is not only to make it deliver those principles, and make them soluble in water, but to give it a property it does not possess in the natural state of the berry. By the action of fire, its leguminous taste, and the aqueous part of its mucilage, are destroyed: its saline properties are created, and disengaged, and its oil is rendered empyreumatical. From thence arises the pungent smell, and exhilarating flavor not found in its natural state.

"The roasting of the berry to a proper degree, requires great nicety. If it be underdone, its virtues will not be imparted, and in use it will load and oppress the stomach; if it be overdone, will yield a flat, burnt, and bitter taste, its virtues will be destroyed, and in use it will heat the body, and act as an astringent. The closer it is confined at the time of roasting, and till the time it is used, the better will its volatile pungency, flavor and virtues be preserved.

The influence which coffee, judiciously prepared, imparts to the stomach, from its invigorating qualities, is strongly exemplified by the immediate effect produced on taking it when the stomach is overloaded, or nauseated with surfeit, or debilitated with intemperance, or languid from inanition.

In vertigo, lethargy, and all disorders of the head, from obstructions in the capillaries, long experience has proved it to be a powerful medicine; and in certain cases of apoplexy it has been found serviceable, even when given in clysters, where it has not been convenient to convey its effects to the stomach. Mons. Malebranch restored a person from apoplexy, by repeated clysters of coffee.

Du Four relates an extraordinary instance of the effects of coffee in the gout.

A small cup or two of coffee, immediately after dinner, promotes digestion.

With a draught of water previously drunk, according to the eastern custom, coffee is serviceable to those who are of a costive habit.

The generality of the English families make their coffee too weak, and use too much sugar, which often causes it to turn acid on the stomach. Almost every housekeeper has a peculiar method of making coffee; but it never can be excellent unless it is made strong of the berry, any

more than our English wines can be good, so long as we continue to form the principal of them on sugar and water.

Count Rumford says, "Coffee may be too bitter—but it is impossible that it should ever be too fragrant. The very smell of it is reviving, and has often been found to be useful to sick persons, and to those who are afflicted with the headache. In short, every thing proves that the volatile, aromatic matter, whatever it may be, that gives flavor to coffee, is what is most valuable in it, and should be preserved with the greatest care, and that in estimating the strength or richness of that beverage, its fragrance should be much more attended to, than either its bitterness or astringency. This aromatic substance which is supposed to be oil, is extremely volatile, and escapes into the air with great facility, as is observed by its filling the room with its fragrance, if suffered to remain uncovered, and at the same time losing its flavor.—*Philips' History of Vegetables.*

[From the N. Y. Farmer.]

THE HARLEIAN DAIRY.

BY R. C. Concluded.

A little boiled linseed was considered the antidote for preventing distillers' wash, &c. from injuring the health of the animals; and wheat straw, cut short, mixed with the grains, also prevented the cows from being sick.

When grains were abundant in the market, large quantities were stored at Willowbank in deep pits, and it was found that the deeper and larger were the pits, the better were they adapted for the purpose. In these pits the grains were first hard tramped; and afterwards in order to preserve them from the effect of exposure to the atmosphere, they were covered with mould and sown with grass seeds, or when it could be obtained, turf was laid on. If carefully stored in this way, it was found that grains would keep in good condition two or three years without salt; and there would be no doubt that they would keep for many years if it were possible completely to exclude the atmospheric air. It may be mentioned by the way, that when any of the pits were opened, the mould that was next the draft emitted a very unpleasant smell; a circumstance which tended to excite unfavorable prejudices in those who did not examine or taste the grains. These had always an agreeable acid flavor, a sure proof of their wholesome condition. As the spring approached, it was customary in the feeding process to substitute the Swedish turnips and potatoes for the yellow turnips; potatoes being generally to be got at a very moderate price in the market at that season of the year.

These two staple roots, steamed with hay and other mixtures, continued thenceforward to be the soft food until grass was again in season. Thus a proportion of succulent food was given to the cattle all the year round. The quantity of food given to the animals varied according to the quality or richness; but it was found very necessary to attend as particularly to *quantity* as to *quality*, because rich food by itself could not be taken in sufficient quantity to fill the stomach,

neither could it easily be digested. The general rule in feeding therefore, was to give as much good wholesome stuff to each as the cattle would eat clean up, always taking care however, to administer it rather sparingly than otherwise in order to avoid giving them a surfeit. It is of the utmost importance to attend to this, for if the cow loathes her food she will neither milk nor fatten.

These rules seem eminently reasonable, and entitled to much consideration. The carelessness with which cattle are in general fed, as it respects regularity in time and in quantity of food, is proverbial among farmers and most disgraceful as well as pernicious to their interests.

We shall continue our accounts of this celebrated and remarkable establishment in a future number.

[From the Southern Planter.]

TURNIP FLY.

Mr. Editor—Looking over an old newspaper the other day, I noticed some experiments tried on Turnip seed, to prevent the destructive ravages of the Turnip Fly or grub, which are sometimes very extensive. The experimentalist stated that he discovered the leaves were eaten almost as soon as the plants were up, so that the field was as brown as before it was sown. He thought at first that the insect might have proceeded from other plants, or the hedges. Accordingly, he took some earth from his garden and placed it in a box, sowed his turnip seed in it, and covered it over with silk gauze so that no insect could enter; but he found them there as destructive as in the open field. He took some earth and boiled it and put it in a box, and sowed the seed watering it with water also boiled, with no better success than before. Having thus satisfied himself that it proceeded neither from other plants, nor was contained in the earth or water, he turned his attention to the seed, on which by the help of a magnifying glass, he found small white flattish substances, which he concluded were eggs. On some seeds he found none; but generally, two or three, and in some instances five on a single seed. The difficulty now was to destroy them. To accomplish this, he made some strong brine and soaked the seed in it 24 hours. It being dried thoroughly, he then sowed it with all the care mentioned above, and not a single fly found nor turnip injured. He found that if the brine was sufficiently strong three hours soaking was enough. He says, "I now practice this method with Turnip seed, Cabbage seed, and in fact with all the creciform plants in common cultivation, with very satisfactory success. The whole of these experiments were made on the Swedish turnip, which is generally more infested by these beetles than any of the other sorts."

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 2

Light, near Pratt street wharf.

CO-PARTNERSHIP FORMED.

JAS. MOORE respectfully informs the public that he has associated **Mr. Richard F. Maynard** with him in the business formerly conducted under the firm of **Sinclair & Moore**, and subsequently, by himself.

The business of the new firm will be conducted under the name of **MOORE & MAYNARD**, and they flatter themselves that the long experience of the first named, combined with the practical knowledge of the last, will enable them to give entire satisfaction to those who may be pleased to extend towards them their confidence and patronage. To such they would tender, in advance, the assurance that no exertion will be left unessayed by them, to fill every order with which they may be honored, with promptitude and fidelity.

They have now on hand, and intend constantly to keep a complete assortment of every kind of *Agricultural Implements, Garden Tools, Field Seeds*, and indeed every thing tending to increase the working facilities of the farmer and planter, and to lose no opportunity of adding such inventions to their already extended list, as, in their opinion, will be promotive of the interests and convenience of the Agricultural community.

The business of the new firm will be conducted at the old stand in *Light, near Pratt-street*, and will be distinguished as heretofore, as

THE MARYLAND AGRICULTURAL REPOSITORY. Among the articles in their line of business, of their own manufacture, which they have now for sale, are the following, viz:

PLOUGHS.

The Self-Sharpening Plough possesses the advantage of having a moveable steel point, from fifteen to twenty-four inches long, which can be reversed, as a bevel is formed by wearing, and advanced as it becomes shorter, so as to bring into actual wear from twelve to eighteen inches of a solid wrought bar; by thus changing the point, the share continues to perform its work well until worn off nearly up to the mould board; whereas, without this moveable point, shares are generally rendered useless when only half worn.

This valuable principle may be applied to any shape of mould board.

SELF-SHARPENING.

No. 00. The smallest size is a 7 inch seed and cultivating plough price \$5 25

No. 0. A one-horse cultivating plough, 8 inches wide, nearly the same length as the smaller one, but has a bolder mould board, and better adapted to sandy lands. The shares and heels of these two sizes suit each other, 5 75

No. 1. A light two-horse plough, 6 50
" 2. A two-horse plough, 9 inches wide, 7 00
" 3. A two-horse flushing plough 8 00
" 4. A heavy three-horse plough with sword colter, 12 00

WOOD'S PATENT.

No. 21. A seed and cultivating plough, 8 inches wide, with cast share 5 00
Corn. A one-horse plough, with wrought iron standard and cast share 5 50

No. 1. A. Is a light two-horse plough, 9 inches wide 6 50

No. 14. A two-horse plough, with sword colter and cast share, a superior flushing plough. The above ploughs of Wood's Patent are entitled to two extra shares each, at the above prices. 8 50

SINCLAIR & MOORE'S IMPROVED.

6 inch. A superior seed plough, with cast share 4 50
7 " A one-horse do do 5 25
8 inch. A light two horse plough, with cast share 5 75
9 " A two-horse do do 7 00
9 " do wrought share 9 50

10 " A heavy two, or light three-horse plough, with sword colter and cast share 9 50

10 " A three-horse plough with wrought share 11 00

10 " A three-horse plough with sword colter, a superior flushing plough, made both right and left handed 12 50

12 " A heavy three-horse plough, with sword colter 15 00

M'CORMICK'S PATENT.

No. 7 inch One-horse wrought shared plough 5 50
" 8 " Light two-horse ditto ditto 7 00
" 9 " Two-horse plough with sword colter 9 50
" 10 " Three-horse plough, with colter 12 50
" 12 " Heavy three-horse plough, with colter 15 00

BAR-SHARE.

No. 1. Is a 7 inch plough, with wrought share and lock colter 6 75
" " Is a 7 inch plough, without colter 5 50
" 14 A one-horse plough, with wrought share and colter 7 00
" 2 A light two-horse plough, with wrought share and colter 8 50
" 3. A two-horse plough, with wrought share and colter 10 00
" 3 1/2 A heavy two-horse plough, with wrought share and colter 10 50
" 4 A three-horse plough, with wrought share and colter, a superior flushing plough 12 00
" 5 A heavy three-horse flushing plough, with wrought share and colter, 15 00

HILL-SIDE.

A plough suited to two horses, with cast share, changes with ease, so as to throw the furrow to the right or left 11 00
Ditto with wrought share 13 00

SHOVEL-PLOUGH.

Wrought shares 4 50
Double-shovel 6 50

CARY-PLOUGH.

No. 1. A one-horse plough, having nearly the form of mould board as the well known Cary or Dagon plough, but has a cast iron mould board and wrought share. The mould board is bold, opens a wide furrow, does clean work, and is very strong and simple in its construction 5 50

No. 2. A light two-horse plough of the same construction 6 50

BUFFALO-PLOUGH.

No. 1. H. A one-horse plough, with cast share 5 50
No. 1 1/2 H. A two-horse plough, with cast share 8 00
" 2. H. Heavy two-horse ditto 9 50

The form of the mould board of these improved ploughs, is somewhat on the principle laid down by Thomas Jefferson, but varied so as to equalize the pressure on the mould board, as observation in the practical use has dictated.

DOUBLE MOULD BOARD.

Two sizes; a very useful plough for cultivating potatoes, &c. and for ploughing up potatoes at the time of gathering the crop. Price \$7 00 to 10 00

EXTRA CASTINGS FOR PLOUGHS.

FOR SELF-SHARPENING PLOUGHS.						
No.	00	0	1	2	3	4
Shares	25	25	25	25	31 1/4	37 1/2
Heels	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2	25
Land sides	75	75	75	75	75	1 00
Md. bds.	1 00	1 00	1 25	1 75	1 75	2 75

FOR SINCLAIR & MOORE'S PATTERN.			
No. 6, or 6 in	7 in.	8 in.	9 in
Shares 25	25	31 1/4	37 1/2
Heels 12 1/2	12 1/2	12 1/2	18 3/4
Md. bds. 1 00	1 50	2 25	2 75

WOOD'S NEW YORK PLOUGHS.

No. 21	Corn	No. 1 a	No. 11-2
Shares 25	25	37 1/2	37 1/2
Land sides 37 1/2	37 1/2	75	75
Md. bds. 1 50	1 37 1/2	1 75	2 25

Also, castings of all kinds made to order, at moderate prices.

CULTIVATORS.

Those with five wrought tines, of the most approved shape 5 75
Five tines of more simple form 5 00
Cast tined from 3 50 to 4 50

If made to expand, 50 cents additional.

WHEAT FANS.

Improved 26 00 to 30 00
Common Fans 20 00
Box Fans, small size 16 00

STRAW CUTTERS.

20 inch. Cylindrical straw cutters, suited to horse or water power capable of cutting from 75 to 100 bushels per hour 75 00
Extra knives per set 16 00
14 inch. Box same construction, suited to manual power 45 00

Extra knives per set 5 00
11 inch. Box 30 00
Extra knives per set, 4 00

These machines are self-feeders, the knives are of spiral form, and act on the bed-steel in such a manner as to cut with great ease without a very keen edge: many thousand bushels have been cut with them without sharpening the knives.

Common Dutch Straw Cutter with treadle 7 50
Ditto without treadle 5 00

CORN SHELLERS.

Of the various kinds offered to the public, the one generally preferred is that with a vertical iron wheel with spring holders, which adapt themselves to any sized ears. There is no machine more certain to answer the intended purpose; they are very durable and easily kept in order, and will shell from 15 to 20 bushels per hour by hand, and are now sold at \$20.00 with a discount of five per cent. if cash be paid.

HARVEST TOOLS.

Grain cradles with warranted scythes 4 00
Grain and grass scythes, and scythe stones. 2 25
Grass scythes and sheaths ready hung
Bramble scythes do do
Hay and manure forks, rakes, sickles and composition scythe rifles, &c. &c.

GARDEN AND FIELD TOOLS, &c.

Hedge shears Turnip hoes
Pruning do Elwell's hoes
Ditto knives Mattocks
Ditto saws Picks
Ditto chisels Socket shovels
Bill hooks Trace chains
Transplanting trowels Hoes
Spades Tussocking Hoes
Garden Reels Hay knives
Ditto lines Straw knives
Iron rakes Dock raisers
Scuffle hoes Ox yokes and bows.
Wove Wire for screens, fans, cellar windows, safes, &c.
Thomson's superior Axes, drawing knives, hatchets, and other tools.

Cotton Gins made to order.

FIELD SEEDS.

They have in store the following seeds, viz:—Timothy, Red Clover, Orchard Grass, Herd's Grass, Tall Meadow Oats, seed Buckwheat, seed Wheat of various sorts, do. Rye, Millet, Oats of the several kinds, &c.

They will particularly call the attention of farmers to a crop of 200 bushels of orchard grass seed which they will have in store and on sale on the 1st September, which is represented of peculiarly by fine quality, being cured with great care.

Horse Scoops, for removing dirt, a most effective invention.

CORN CRUSHERS. This implement may be worked by either hand or horse power, and is considered an invaluable acquisition to those who have large stocks, as the cob and grain of the corn are rendered almost equally available as feed.

DOUBLE CORN SHELLERS. It is not saying too much of these simple though powerful implements, when it is affirmed, that they are the most useful among the labor saving inventions, one of them being competent to shell more corn in a day by hand-power than 20 men.

CYLINDRICAL STRAW CUTTERS, IMPROVED. The universal approbation conceded to the large sized Cylindrical Straw Cutters, having induced them to prepare the small sized ones upon the same convenient principle, they are happy in being able to announce a supply of these very desirable and justly popular articles.

JAMES MOORE will carry on the Foundry individually, and he avails himself of the occasion to say, that from his own experience, the skill of his foreman, and his disposition to please, together with the superiority of his workmen, the public have every guarantee that the work will be faithfully executed. Castings of all kinds, and of the best quality, will be furnished to order at the shortest notice, deliverable at the store or any other part of the city, or on board vessels.

aug 9

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	
CATTLE, on the hoof,	100lbs.	7 00	8 50
CORN, yellow,	bushel.	85	86
White,	"	80	81
COTTON, Virginia,	pound.		
North Carolina,	"		
Upland,	"	18 1/2	20
Louisiana 19—Alabama	"	18	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.		1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 00	9 50
Do. do. baker's,	"		
Do. do. Superfine,	"	7 75	8 00
SuperHow. st. in good de'd	"	7 75	7 87
" wagon price,	"	7 50	7 62
City Mills, extra,	"		8 00
Do.	"		7 87
Susquehanna,	"	7 75	8 00
Rye,	"	5 25	
Kiln-dried Meal, in hhds.	hhd.		19 00
do. in bbls.	bbl.	4 00	4 12
GRASS SEEDS, red Clover,	bushel.	4 50	5 00
Timothy (herds of the north)	"	2 75	3 25
Orchard,	"	none	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.		20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 75	8 25
Slaughtered,	"		
HOPS—first sort,	pound.	16	
second,	"	14	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"		
OATS,	"	40	42
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.		3 25
Ground,	barrel.	1 50	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	106	112
Susquehanna,	"		
TOBACCO, crop, common,	100 lbs	4 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"		
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf, ..	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"		
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	1 75	
Red,	"	1 50	1 70
WHISKEY, 1st pf. in bbls.	gallon.	38	39
" in hhds.	"	35	
" wagon price,	"	31	
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	
To Wheeling, ..	"	1 50	
WOOL, Prime & Saxon Fleeces, ...	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,	"	38 40	26 28

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	16	17
Shoulders,	"	12	
Middlings,	"	13	13 1/2
Assorted, country,	"	11	
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 75	1 81
CHOP RYE,	"		1 87
EGGS,	dozen.		12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	
No. 2,	"	9 50	
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, \$8.—No. 3	"		5 25
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	15	

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	
Branch at Baltimore,	do	Farmers Bank of Virginia 3a 1/2
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	3a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton,	do	Bank of the Valley,
Salisbury,	5 per ct. dis.	Branch at Romney, 1
Cumberland,	3a	Do. Charlestown, do
Millington,	do	Do. Leesburg,
DISTRICT.		Wheeling Banks, 3 1/4
Washington,		Ohio Banks, generally 3a 1/2
Georgetown, } Banks, 1.		New Jersey Banks gen. 1 1/2a
Alexandria, }		New York City, 1a
PENNSYLVANIA.		New York State, 2 1/2a
Philadelphia,	1a	Massachusetts, 2a 1/2
Chambersburg,	3a	Connecticut, 2a 1/2
Gettysburg,	do	New Hampshire, 2a 1/2
Pittsburg,	2a 1/2	Maine,
York,	1a 1/2	Rhode Island, 2a 1/2
Other Pennsylvania Bks. 1 1/2a		North Carolina, 3a 1/2
Delaware [under \$5] 3a 1/2		South Carolina, 3a 1/2
Do. [over 5] 2a 1/2		Georgia,
Michigan Banks,	5a	New Orleans,
Canadian do. 5a		

FARMER'S REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,				\$33
11 " Permanent Bottom 28,	do	do	do	31
13 " " 43,	do	do	do	48
13 " Revolving Bottom 45,	do	do	do	50

15 " " " 50, do do do 56
20 " Large size fitted for horse-power 80, do do 90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

July 5 2t

Light near Pratt st. wharf.

OXEN WANTED.

THE Editor of the Farmer & Gardener, Baltimore, Md. wishes to purchase 4 pair of Eastern Oxen. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective oxen, price deliverable at Baltimore, and time when they can be delivered.

Editors to the eastward with whom we exchange will confer a favor which will be reciprocated by giving this a few insertions. jy 19

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper. june 28

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. jy 19

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior in points. His price is \$300. jy 11 4t

CONTENTS OF THIS NUMBER.

Notices—of the horse-mowing machine—of the drought—of the commencement of a valuable article on the beet culture—remedy preventive of the ravages of the turnip fly, with remarks thereon by the Editor—advice to merchants and agriculturists—great produce of a cow—cure for the gaps in chickens—notice of J. F. Maynard—on the injury of topping corn—Louisiana crops—the art of making coffee—the Harleian dairy—advertisements, prices currents, &c.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 16.

BALTIMORE, MD. AUGUST 16, 1836.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 16, 1836.

To a Correspondent.—The suggestions of "One of his subscribers," shall be promptly attended to.

The Drought.—We see by our exchange papers that the corn crop in some parts of the Eastern Shore is suffering for the want of rain; and this is to be the more regretted as from the failure of the wheat crop, any important diminution in that of corn will be severely felt not only by the public spirited citizens of that peninsula, but by a large district of country whose supplies of this excellent grain are drawn from there.

A letter from an esteemed correspondent dated Carlisle, Pa., August 5, says:

"The wheat, Rye and Oats harvests are over in this county—the wheat and rye crops are exceedingly light, but the oats crop is abundant beyond precedent—the hay has been well got in, and the corn, buckwheat, and potatoes, were never more promising.

Dutton Corn.—A respected correspondent of Goochland County, Va., in speaking of a small experiment that he had made with this corn, says:

"It is the earliest variety I have ever seen. It is now dry."

LIME AND ITS USES.

A correspondent whose letter bears the post mark of Leesburg, Va. and who signs himself "A Subscriber and Reader," asks us the following questions:

1. What quantity of lime should be spread upon an acre of ground now in clover-ley, and intended to be sown in wheat?

2. What are the offices performed by the lime?

3. What number of years will it act advantageously upon ground on which it may be placed?

4. What kind of soils does it suit best, and when can it be most serviceably employed?

5. What quantity of lime should be put upon an acre?

To these queries we answer:

1. The 1st and 5th questions are so nearly twins, if we may so express ourself, that the answer to the one must suffice for both. With regard to the quantity of lime which can be used to advantage on an acre of ground there is great diversity of opinion, and, indeed, it is almost impossible to prescribe any rule which would be entitled to be universally observed. Authors differ upon this subject as upon every other, some fixing the *minimum* at 25 bushels per acre, while others carry their *maximum* to 500 bushels. Such wide difference of opinion, among those who should be presumed to understand the force of their recommendations, is at least disheartening to those who look at the subject with a superficial eye; but to those who have given themselves the trouble to *examine* and *think* upon the subject, it must but serve to confirm their belief in the justness of the opinion, now mostly entertained among enlightened men, that lime of itself is a *stimulant*, and not a manure—that its specific action consists in converting all woody and vegetable matter, with which it comes in contact, into nutriment, by promoting its decomposition. If this be true, and we believe it is, it follows as a natural consequence, that the specific service performed by lime is *limited* by the quantity of matter upon which it may be required to act, and therefore, that the *quantity* to be used per acre, must be regulated accordingly. If a field with a fine body of clover upon it be ploughed up, a hundred bushels of lime could with decided profit be used to the acre. We say so, not under the belief that the entire stimulative properties of the lime would be *requisite* to convert such body of vegetable matter into food for the immediate succeeding plants; for our belief is, that it will continue to exert annually a portion of its meliorating powers; because we are of opinion that after it shall have promoted the decomposition of the clover-ley, that its *superabundant quantity* will serve for ma-

ny years, both as a decomposer of vegetable substances, and as an attractor of moisture from the atmosphere; and that in this way a most beneficial influence will continue to be exerted on the growing plants for an almost unlimited period of time. It will be thus evident, according to our view of the operation of this mineral, that it acts in a double capacity, viz: *stimulative* and *attractive*: and that for all *present* purposes of promoting vegetation, a greater quantity of the mineral than is necessary to effectuate these purposes is unnecessary for the time being. To ascertain the *precise point* at which the efficacy of the mineral is beneficially exerted, is a matter of great difficulty; but here the *experience* of the farmer comes into his aid, and he is thereby enabled to proceed without danger of applying it in excess of quantity. In England, where its virtues were known, and its advantages experienced long before it was introduced into use in American husbandry, from 50 to 640 bushels have been put upon an acre without any injury—on the contrary, indeed, with decided benefit. The latter quantity we suspect to be very far above what is indispensably necessary; and from the circumstance of the former one exerting a happy influence upon the succeeding crops, we think it, besides being less expensive, the more judicious quantity. At all events, we would not recommend the application of more than 100 bushels to the acre, upon the *stiffest soil*, because we believe it amply sufficient for all the purposes of promoting healthful vegetation; and where the soil is a *sandy loam*, or gravelly loam, half that quantity in our opinion will answer.

2. Its offices consist in promoting the immediate decomposition of all vegetable substances which may be in or upon the ground—in attracting moisture—and by its antiseptic qualities, it neutralises all noxious vapours which may surround it. In this way it greatly contributes to the promotion of the health of a place. While it gives tenacity to thin sands, it opens and renders friable clayey soils, thus rendering both better adapted to the purposes of the husbandman.

3. With respect to the number of years lime will act advantageously upon land, we would remark, that when once limed, with proper care in pursuing a rotation of crops, and the occasional

ploughing in of a clover-ley, a crop of buckwheat, a grass-sward, or dressings of long manure, it will last for an almost indefinite period; but the duration of its usefulness will mainly depend upon giving it matter to act upon.

4. From the preceding remarks it will appear obvious, that it is equally well adapted to all kinds of soils, with the exception of bogs and marshes, and these, before they can be made to derive any benefit from this mineral, must be *well drained*, and deprived of the water which they may contain.

Having answered the queries of our correspondent, we will make a few additional remarks, illustrative of our views with respect to the mode of applying it. In all cases it should be applied to soil upon which there is a good vegetable covering; and this is the more obvious from the circumstance of its specific action being that of converting other materials into vegetable nutriment. Hence it follows as a matter of course, that the greater the vegetable body which may be upon the land, the more lime may be safely used.

We deem it proper to observe, that where clover-leys may be turned in with a view of sowing wheat, after the ground is ploughed, it should be permitted to remain for at least two weeks before the grain be sown, so as to let it undergo the more violent fermentation which is immediately consequent thereupon; and in spreading the lime, care should be taken to do it as evenly as possible, in order that its benefits may be as uniformly diffused as possible.

Those who wish to see this subject treated at large, we respectfully refer to the very able memoir from the pen of that eminent French chemist, M. *Puvis*, published in this work last year.—But to those who may wish to see it compressed into a small compass, we would respectfully recommend the following brief though satisfactory article:—

"Lime.—By the fermentation it induces, the earth is opened and divided; and by its absorbent and alkaline qualities, it unites the oily watery parts of the soil. It seems also to possess the property of collecting the acid of the air, and of forming with it a combination of great use in vegetation. Thus robbing the soil of its oily particles, it will in time render it barren, unless supported with manures of an oily nature. Its great use upon a sandy soil is, by mechanically binding the loose particles, and thereby preventing the liquid parts of the manure from escaping out of the reach of the radical fibres of the plants. Upon clay the effect is different: for by means of the gentle fermentation it induces, the unsubdued soil is opened and divided; the manures laid on regularly, so as to come in contact with every part of it, and the fibres of the plants have full liberty to spread themselves. Although we can-

not describe all the soils that lime operates beneficially upon, we can specify some upon which it does operate well. 1. Upon all soils, being drained, which contains an abundance of ligneous or woody matter, as reclaimed swamps, and upon those containing insoluble vegetable matter, i. e. matters which will not dissolve in water; by reason of their chemical combination, quick lime will be beneficial by rendering the inert matter soluble, and fitting it to become the food of plants. 2. Upon all soils deficient in calcareous, or carbonate of lime, be they even stiff clays or porous sands, mild lime, or lime that has become saturated with carbonic acid, is unquestionably beneficial. It corrects the mechanical defects of clays and sands—renders manures more beneficial, and the drafts less prejudicial. Quick lime soon becomes mild lime after it is commingled with the soil. As a general rule, carbonate of lime is beneficial upon all soils belonging to the primitive formation, and to transition formations that are deficient in this earth. In the use of this mineral, we see the importance of knowing the constituents of soils."

BEET SUGAR.

The following facts relating to Beet Sugar are extracted from a late French publication:

The manufacturer buys his Beets of the farmer at 16 francs for 1000 kilogrammes. A kilogramme is 2 1-5 lbs. avoirdupois; 100 kilogrammes weigh 2,200 lbs. avoirdupois.

Beets, by accurate analysis, contain ten per cent. of saccharine matter. The manufacturer obtains 6 per cent. of good brown sugar—he lives in expectancy, by future improvements, of 8 per cent. or more. 1000 kilogrammes produce him 1-6th, or 60 kilogrammes of marketable brown sugar, equal to 132 lbs. avoirdupois. The manufacture of 1000 kilogrammes costs 12 francs, from which deduct 3, being the value of the residue as food for cattle. Hence 132 lbs. of saleable sugar can be obtained by the manufacturer at the expense of 25 francs. A franc may be considered as 20 cts. and as there are 20 sous in a franc, a sous is one cent, or one half-penny sterling. The French writers say that it costs 5 sous per French pound, which Kelly in his *Cambist* states at 7717 grains. This calculation brings the cost of marketable brown sugar to 4½ cents per lb. avoirdupois.

The beets in this country, particularly the north part of Pennsylvania, are most luxuriant. In France they yield per arpent, which is 1-10th more than our acre, an average of 15 tons per acre at most. The white or Silesian Beet ("Beta Alba")—the sugar Beet of France—has been raised within 7 miles of Philadelphia, and produced much over this. Wm. Audenried, Esq. of Schuylkill county, Pa., has raised on his farm, of this beet, the enormous quantity of sixty-two and a half tons to the acre. We are assured by others who are growing the seed which has been imported and distributed so extensively throughout the country by the "Beet Sugar Society," that they are in expectancy of producing a yield equal to the above.—*National Gazette*.

The Crops.—Our farmers have just finished harvesting their oats crops, which have yielded abundantly; and the corn fields generally are very promising, which we think, will greatly

alleviate the expected pressure to be occasioned by the shortness of the wheat crops in this neighbourhood. Thus the saying is verified, that the farmer's business though subject to more casualties than almost any other, is yet so divided among many risks, that he is rarely exposed to the hazard of total failure; the same weather which often injures one crop improves another.

We shall soon have ripe peaches in great profusion; the trees generally are so full, that almost every limb requires a prop to prevent its breaking.—*Salem, N. C. Chronicle*.

Extract of a letter, dated

"TENSAN, (Ala.) July 12, 1836.

"Owing to the abundance of wet weather, it is the generally received opinion that there will not be more than half crops of Corn or Cotton made throughout the state. Many of the planters on the river are now planting Corn, having lost two plantings in succession by freshets. The Worms have also taken to the corn, which makes it very doubtful whether they will make any thing like bread enough for their families. Cotton and Corn must evidently be very high the present year. I have heard that five dollars per bushel for Corn has already been offered in the town of Montgomery, (the Corn growing part of the country,)—the truth of this however I do not vouch for; it is bad enough, but I trust not so bad as that."—*Balt. Pat*.

NOVEL IMPORTATION.—Five large African male asses of a nearly milk white color, were on Saturday landed from the brig *Commaquid*, which arrived here on Friday from Gibraltar.—These animals are altogether unlike in appearance to the English ass or donkey, one of which may occasionally be seen here, and which is a diminutive little animal, and of very little use as a beast of burden. The African ass is on the contrary as large as a middle sized horse, and has been, as far back as the days of Scripture, an animal much prized for its useful qualities in Asia and Africa.—*Journal of Commerce*.

PLUMB TREES.—The rough, black excrescences that appear on the branches of plumb trees, or rather the insects which cause these excrescences, have discouraged the cultivation of plumbs in Vermont, more than any thing else. The insects leave the diseased branches in July. Cut them off and burn them before July commences, year after year, and the disease will soon cease to trouble you; especially if your neighbors will adopt the same plan.—*Vermont Chronicle*.

Cocoons & Raw Silk will be purchased to any extent by the Northampton Silk company. They have contracted with Dr. Stebbins for a number of bales of raw material consigned to him by an importing house in Boston, and are ready to purchase all raw Silk which may be offered. These facts should convince people of the earnestness of the business, and that our own folks should raise trees and feed worms, rather than compel our Silk Manufacturers to send abroad for the raw materials. In a few days we hope to have some specimens of Silk for exhibition, from the looms of the Northampton Silk Company.

[From Chaptal's Agricultural Chemistry.]

ON THE CULTIVATION OF THE BEET ROOT, AND
THE EXTRACTION OF SUGAR FROM IT.

(Continued.)

ON THE BEST METHOD OF KEEPING BEET
ROOTS.

Beets are affected both by cold and heat: they freeze at a temperature one degree below the freezing point of water, and they germinate with a degree of heat but little above freezing: freezing softens them and destroys their saccharine principle, and they decay as soon as they are thawed. Heat develops the stalks of the necks of the roots, and decomposes the juices which supply their growth. During the first stages of germination, the alteration of the juices is only local, so that if the neck of the root be cut off, the remainder of it may be made use of without any inconvenience. In order to keep beets, it is necessary to preserve them both from heat and cold.

The first care of the farmer must be, to have his beets thoroughly dry before being housed. The best way is to leave them in the fields till all their dampness have evaporated. When, however, a large harvest is to be gathered in autumn, a sufficient number of fine days can hardly be hoped for, and the roots must therefore be stored for the winter in such a manner as will be most likely to prevent decomposition.

I have an immense barn, where I pile up my beets to the height of seven or eight feet. I make use of no other precaution than that of forming round the surrounding walls a layer of straw or broom, which rises as high as the pile of roots; when the frosts set in, I cover the pile over with straw; and in this way I have for ten years preserved my crops of beets uninjured by them. It has however happened two or three times, that the roots began to germinate with so much energy, that I was fearful they would become decomposed. In these cases, I unstacked and spread the beets, and thus arrested the process of the vegetation.

Some farmers leave their beets in the fields. In order to preserve them they dig a trench in a dry soil, giving the bottom a gentle slope, that water may flow off easily. This trench they fill with the roots, and cover it over with a bed of earth a foot thick; upon this they throw heath or broom, to prevent the rain from penetrating. Some line the bottom and sides of the trench with straw or heath.

Instead of being put into trenches, the digging of which is always expensive, the beets may be preserved in the fields by forming heaps of them upon a dry soil, and covering the tops and the sides with layers of earth; or they may be covered over with a roof like the one heretofore described. This method of preserving roots may be employed when there is no suitable storehouse for them; or when the means of conveying them to one in autumn are wanting.

ON THE EXTRACTION OF SUGAR FROM BEETS.

I shall not here describe the numerous difficulties that have been encountered before arriving at sure methods and certain results. I shall confine myself to the description of the simplest

and most advantageous processes that are employed at this time; and I will draw my examples from my own practice, enlightened as it is by twelve years of experiment and observation. I have successfully executed all the known processes; and I have tried all the improvements that have been suggested: I have myself regulated and improved some of the processes; and I shall describe only such as I have proved and confirmed.

ON THE PREPARATION OF THE ROOTS.

Before subjecting the beets to the teeth of the rasp, they must be carefully freed from the fields. The necks, and any portion that has begun to decay, must be cut off, and the radicles removed from the surface.

In many manufactories, nothing more is done to the roots than to wash them. But this operation cannot be conveniently practised in all places, and I have therefore dispensed with it as a preliminary; nor have I found any bad effect to arise from the omission of it. Eight women can easily prepare 10,000 lbs. of the roots in a day. If the beets are large and retain but little earth about them, the same number of women can prepare in the same time from 15 to 20,000 pounds.

ON THE METHOD OF RASPING THE BEET ROOT.

The beets, when well cleansed, are submitted to the action of a rasp, by which their fibrous substance is reduced to a pulp. The rasp is worked either by a horse, or by a stream of water. The rapidity of its motion should be equal to four hundred revolutions upon its axis in a minute.

The rasps used by me, are sheet-iron cylinders, 15 inches in length, and 24 in diameter, having their surfaces furnished with 90 iron plates armed with saw teeth and fixed by screws perpendicularly to the axis of the cylinder and throughout the whole length of it.

The beets being pressed against the rasp, by means of a piece of wood held in the hand, are immediately torn in pieces. The pulp falls into a box lined with lead, which is placed beneath. The table upon which the beets destined to the rasp are placed, is so near the instrument as to allow only sufficient space between for the passage of the pulp.

The operation of rasping must be conducted expeditiously, otherwise the pulp begins to turn brown, fermentation takes place, and the extraction of the sugar is rendered difficult. By the use of two rasps, put in motion by the same horse, I have reduced 5000 pounds of beets to a pulp in two hours. The pulp should not contain any portions of roots that have not been acted upon by the instrument.

Compression will not in any degree supply the place of rasping. The strongest presses can never extract from beets more than from 40-100 to 50-100 of their juice, whilst the pulp, if properly managed, will yield from 75-100 to 80-100.

ON THE EXTRACTION OF THE JUICE.

As fast as the pulp falls into the box placed under the rasps, it is put into small bags made of very strong cloth woven of pack thread.—These bags are placed upon the plate of a good

iron screw press and submitted to a strong pressure. The screws are after a time to be loosened, the places of the sack changed, the pulp which they contain shaken over, and the whole again submitted to the action of the screw.

Sometimes the pulp is first acted upon by a cylindrical press, by which about 60-100 of its juice is extracted, and the operation is afterwards completed by means of the screw press. But 10,000 pounds of beets may be pressed in a day by the last alone.

The pressure should be continued till the pulp will not moisten the hand when strongly squeezed in it. The juice which flows from the press, is carried by leaden pipes into the boiler, where it undergoes the first operation. Of this I shall speak immediately.

If an iron screw press is not to be had, a wine press, a lever press, or a cylinder press will answer the purpose.

The operation of the press should be completed nearly at the same time with that of the rasp. Every thing that has been moistened with the juice, must then be washed so as to be ready for a new operation. The utmost cleanliness must be preserved, otherwise the rasps will become rusty, the juice will change, and the boiling will be rendered difficult.

The juice extracted from beets, is not always of the same degree of concentration. It varies from 5 to 10, (=specific gravity of 1.036 to 1.065) according to the size of the roots, the nature of the soil in which they grew, and the state of atmosphere during vegetation.

The juice of the large roots is less concentrated than that of the small ones. The juice of such as grow in a light soil, and have been exposed to heat and drought, marks 11, (=specific gravity of 1.083; but there is but little of it.—The greater the specific gravity of the juice is, the greater is the proportion of sugar contained in it; and, of course, the greater is the saving of labor in the extraction of the sugar.

ON THE PURIFICATION OF THE JUICE.

As soon as the boiler which receives the juice is one-third full, the fire is kindled; and as the juice continues to flow, the heat is raised to 66 degrees of Reaumur, (=180 3-4 deg. of Fahrenheit.) I have worked 10,000 pounds of beet roots per day, at two operations of 5,000 pounds each. The first began at 4 o'clock, A. M., and the other at noon. The round boiler, which received the juice of one operation, was five feet and six inches in diameter, and three feet eight inches in depth. I had a separate boiler for each operation, and each boiler had two stop-cocks, one close to the bottom and the other five inches above. Between these two boilers, there were two vessels fifteen inches deep, and each of sufficient capacity to receive the juice of an operation. In these, evaporation is carried on. The rims of all the boilers should be very wide, so as to cover the thickness of the wall in which they are set.

My rasps and presses are placed upon the first floor, in order that the juice may flow through leaden pipes into the boilers, which are upon the ground floor, and thus save the labor of transportation. By this arrangement, I can have my depuratory boilers so much raised, that upon tur-

ning the stop cock, the juice will flow into the evaporating vessels.

Whilst the juice is heating, some milk of lime is prepared by pouring gradually some warm water into a bucket containing ten pounds of lime. My boiler contains 475½ gallons of juice, so that I employ the lime in the proportion of about 46 grains troy.

As soon as all the juice has passed into the boiler and become heated to the degree mentioned in the last paragraph, the milk of the lime is thrown into it, the greater care being taken to stir and mix them well together; after which the temperature may be raised to the boiling point. As soon as the first bubble makes its appearance through the thick glutinous scum which rises upon the top of the liquor, the fire is immediately extinguished by throwing a pailful of water into the fire place. The scum thickens, dries, and hardens by rest. The juice becomes clear, and takes a light yellow hue. When there can no longer be seen in it particles either of lime or mucilage, the scum is removed with a skimmer and thrown into the bucket, in order that the juice which it contains may be expressed. The upper stop-cock is then opened, and the liquor is suffered to flow into the evaporating boiler.

The juice does not become clear in less than an hour, and evaporation ought not to be commenced till it is perfectly limpid.

As soon as all the liquor above the level of the upper stop cock has passed out, the second stop-cock is turned; and if the liquor flowing through that be found clear, it is mixed with the first portion. If on the contrary, it appears cloudy the stop cock is again closed to give it time to settle, and it is not made use of till towards the termination of the evaporation.

The deposit which was formed at the bottom of the boiler, renders the last portion of the juice turbid. But as soon as this is seen to be the case, that which remains is drawn off into the bucket containing the scum.

The deposit which is formed at the bottom of the boiler, and this scum, are expressed by means of a lever press of very simple and cheap construction, and which is very easily worked.

I place a cylindrical willow basket upon a block of stone three feet square, the upper surface of which is slightly inclined and furrowed with channels an inch deep uniting in a common centre at the lower angle. The basket is lined with a bag of coarse cloth, the end of which turns back and hangs down. Into this bag I put the deposit and scum; then drawing the edges of it together, I tie the mouth closely with a packthread. I place on the top a wooden trencher of the diameter of the inside of a basket. This I load with several square pieces of wood, which project over the upper part and serve as a fulcrum for the lever. When things are thus far arranged, I proceed to adjust the lever, which is five feet long. This is fixed at one end to a ring bolt, which passes through a stone. The other end I load with weights to the amount of from 56 to 112 pounds, increasing them at pleasure so as to produce a gradual and constantly increasing pressure, which may be rendered as

powerful as is necessary. The juice which is thus forced out, flows into a bucket and is thrown into the evaporating vessel.

The most difficult operation to be performed, is that of purifying the juice; and if this be not thoroughly done, the processes of evaporation and graining are long and troublesome: the juice swells and bubbles up in the boiler, and the sugar crystallizes imperfectly and remains mixed with molasses. The lime which is thrown in to clarify the juice, does not always rise to the top with the scum, by a prolonged period of rest in the deputary boiler, neither is it always precipitated. It sometimes happens, that notwithstanding all the care that can be taken, the liquor remains cloudy; and in such cases it is always in vain to look for good results. I have endeavored to ascertain the cause of these accidents, and I have sought to remedy the evil. I shall report here only what appears to me to be fully established by experiment and observation.

The juice does not purify well if the beets have begun to germinate too strongly, or if they have begun to decay, or have been frozen.

When the operations of the rasps and presses are conducted too slowly, so that the juice stands five or six hours before being purified, decomposition commences, and good results are never obtained.

If all the utensils employed are not carefully washed after each operation, so as to free them thoroughly from the juice adhering to them, the labor becomes difficult and unsuccessful.

I found, upon one occasion, that beets which had been kept in a cellar, where they had neither frozen nor germinated, did not, when subjected to experiment in March, yield sugar. They appeared perfectly healthy, though a little softer than those that had been kept in barns.

If the first operations are not well conducted the results are always bad. I can only point out the steps that can be taken to prevent this.

Beets, that have been well kept, may be worked with equal good success from the beginning of October to the end of March.

When the juice does not become clear, a small quantity of sulphuric acid may be thrown into the evaporating vessel, a little before the liquor begins to boil. This will remedy any trouble arising from the use of too large a quantity of lime. It will however, be useless, if the faults proceed from an altered state of the beet juice.

By making use of a portion of animal charcoal to clarify the liquor, the evaporation of the juice and the graining of the sugar is sure to be rendered more easy; but the quantity of sugar obtained is very small.

The lime used in the process of purification combines with the mucilaginous principle of the beets, and neutralizes the malic acid contained in them; after this operation, the juice weighs 1° or 1-5° less than before.

[To be continued.]

A hint to Farmers—Value of Apples.

J. Buel.—In the fall of 1835, I gathered about 150 bushels of good sound apples, of different kinds, and put them into my cellar, for the purpose of feeding them to my stock of cat-

tle and pigs, to see what effect they would have. When hard weather commenced, I had two cows that gave milk; I put them into a stable, and commenced feeding the two cows with half a bushel of apples to each cow per day. I charged the boy that milked them, to see if the cows increased in their milk, and the third day the boy says that the cows gave almost double the quantity that they did before I fed them with the apples; and the young woman that had the charge of the milk, says that the butter that was made from the milk of those cows at the time of feeding them with apples, was of a fine flavor, and a fine yellow color.

I likewise commenced feeding them to my pigs; I fed about one bushel a day to thirteen pigs, with a small portion of corn, and I now defy the state to bring thirteen as good pigs as mine, that has had no better keeping.

I had gathered about two hundred and fifty bushels of good sound apples, and put them into a good bin in my carriage house, with the intent of making them into cider; but before I got ready to make them into cider, the cold weather came on, and my apples froze. I immediately covered them with blankets, and they remained in that situation till the thaw, in the latter part of December; I then commenced feeding them to my stock of cattle, which consisted of 22 head and two colts, I fed them about ten bushels per day; I soon found that my cattle would not eat half the quantity of hay that they did before I commenced feeding them with apples, and when the apples were gone, I could see that my cattle had gained in flesh and looked better. I think that my apples that I have fed out to my stock of cattle this winter, has been to me more worth than though I had made them into cider and sold it for one dollar per barrel.

This from yours, &c. ELEAZER CADY.

Canaan, Feb. 16, 1836.

Note. A gentleman of Montgomery, informs us that he has derived like benefits from storing his apples, and feeding them in winter, to his stock; and that a horse which had for a long time been afflicted with the *heaves*, and to cure which, every previous prescription had failed, has been restored to entire health by this apple diet.

Correspondence of the Journal of Commerce.

SMITHFIELD, Isle of Wight Co. (Va) }
July 28, 1836. }

Sir—I observed in the Mercury of the 21st inst., (a weekly paper from the office of the Journal of Commerce) an editorial article on the subject of Hydrophobia, wherein it was stated that several persons in your city had been bitten by dogs supposed to be laboring under that disease. Believing it to be the duty of every man, who possesses information calculated to benefit his fellow beings, to communicate it, I take the liberty of addressing you, to inform you of a *prophylactic* remedy for hydrophobia, in which I am induced to place some confidence. The fear of being charged with quackery has prevented the medical gentleman, in whose practice it has been most successfully used, and from whom I obtained the information which I now make known to you, from publishing it through the papers for

the good of mankind; but as the city of New-York appears to have been visited this summer by many rabid animals, and many of the citizens have been bitten by them, I conceive it to be my imperious duty to my fellow creatures to use any means in my power, calculated to alleviate their sufferings. The remedy has been administered to 8 of the human species who had been bitten by dogs, undeniably mad, and in a majority of those cases many years have elapsed, but not one has been affected with the least symptom of the disease. Many dogs have also been treated with the same remedy, and none of them were subsequently affected. It is well known to physicians that a large majority of the persons who are bitten by mad dogs, never have the disease unless they receive the bite on a naked part of the body: but under this last circumstance very few escape. Now the persons who have been treated with this remedy, were all of them bitten on the naked hands, arms or legs, which causes me to rely on its efficacy as a preventive more strongly than if the parts had been covered; whereby the animal's teeth might have been cleansed of the saliva before they entered the flesh.

The following is the receipt and mode of administering it. You will perceive it is composed of vegetables common in every part of our country, and so perfectly harmless in themselves, that it cannot possibly prove injurious to the system.

Take of the fresh leaves of the Tree-box, 2 oz.
of the fresh leaves of Rue, 2 oz.
of Sage, ½ oz.

Chop these fine, and boil in a pint of water to half a pint, strain carefully, and press out the liquor very firmly; put back the ingredients into a pint of milk, and boil again to half a pint; strain as before, mix both liquors; of which give one-third part, each subsequent morning fasting. As it possesses no power to relieve the disease itself, but is given merely as a preventive, any time between the reception of the bite and the first appearance of the symptoms is the proper period of administering it.

Your's respectfully,

JOHN R. PURDIE, M. D.

Dr. P. requests us not to publish his name unless "urgently required." We suppose the urgency exists; for the public pay little regard to publications on such subjects, not accompanied with a name.

Eds. J. of C.

From late Foreign Journals received at the office of the National Gazette.

APPLICATION OF STEAM TO AGRICULTURE.

To the editor of the London Morning Chronicle.

Sir—Some incorrect statements having appeared in several provincial papers, relative to a recent exhibition near Bolton-le-Moors, of the application of steam to bog cultivation, as invented by Mr. Heathcoat, I should feel obliged by the insertion of the accompanying remarks, on the part of myself and those gentlemen who accompanied me to witness this interesting experiment.

I am, sir, your obedient servant,

26, Pall Mall, June 13th. H. HANDLY.

STEAM PLOUGHS.

The adaptation of inanimate power to the tillage of the soil, must evidently have been considered by practical men to present insuperable difficulties, or steam would, probably, long since have been substituted for horses and oxen, as the motive power of agricultural implements. Certain light operations of the farm, such as thrashing, churning, chaff-cutting, &c., which could be performed by fixed power, have partially occupied the attention of mechanics, and suitable machinery driven by water, wind, or small steam engines, has to some extent been advantageously used for such purposes. But the idea of a "steam farm," of a farm to be altogether cultivated by steam, in lieu of animal power, has hitherto been treated as visionary and absurd, except by a few individuals, and one or two agricultural societies, who have enforced in their publications, the practicability and importance of applying steam to effect the more laborious operations of agriculture.

This desideratum is at length accomplished. Mr. Heathcoat, M. P. for Tiverton, the ingenious and well known inventor of the lace machinery, has the merit of having conceived and planned this additional and remarkable contribution to science, and to the wealth of his country. The invention after years of costly experiment, has been matured and perfected through the enterprising liberality of Mr. Heathcoat, assisted by the mechanical ingenuity and perseverance of Mr. J. Parkes, civil engineer, whom he selected to carry his designs into effect. The first machine has been constructed expressly for the cultivation of bogs, and has, for some months, been practically and successfully worked in Lancashire, on Red Moss, near Bolton-le Moors.

During the Whitsuntide recess of Parliament, a numerous assemblage of gentlemen from different parts of the country attended to witness an exhibition of this novel and interesting invention; amongst whom were Mr. L. Chapman, M. P., Mr. T. Chapman, Mr. H. Handly M. P., Mr. J. Featherstone, of Griffinstown-house, Westmeath (an enterprising and successful bog-reclaimer), Mr. F. Brown, of Welbourn, Lincolnshire, Mr. James Smith, of Deanston, near Stirling, (well known to the mechanical world by his ingenious inventions, applied both to agriculture and manufactures,) Mr. B. Hick and Mr. P. Rothwell, experienced judges of mechanical contrivances. These gentlemen were unanimous in pronouncing the invention to be the germ of great improvements in the science and practice of agriculture, as well as eminently fitted for the particular purpose to which it has, in the first instance been applied. Two ploughs of different construction were put in action, to the admiration of the spectators; particularly the one last invented, which is double-acting, or made with two shares in the same plain, so that it returns at the end of a "bout," taking a new furrow, without loss of time. The perfect mechanism of this plough—the action of the working coulters and under-cutting knives, which divide every opposing fibre of the moss—the breadth and depth of the furrow turned over—the application of a new and admirable means of traction, instead of chains or ropes—together with the facility with which the machine is managed, and the power applied to the

plough, especially interested and surprised all present. The speed at which the plough travelled was 2½ miles per hour, turning furrows 18 inches broad by 9 inches in depth, and completely reversing the surface. Each furrow of 220 yards in length was performed in somewhat less than three minutes, so that in working a day of twelve hours, this single machine would with two ploughs turn over ten acres of bog land!

The machine which bears the steam-engines is itself locomotive; but as the ploughs are moved at right angles to its line of progress, not dragged after it, the machine has to advance only the width of a furrow, viz., eighteen inches, whilst the ploughs have travelled a quarter of a mile; in other words, the machine has to be moved only eleven yards, in the time that the ploughs have travelled 5½ miles, and turned over a statute acre of land. This is, in truth, the prime distinguishing feature of the invention; it is the contrivance on which the genius of its author is more particularly stamped, and which seems to be essential to the economical application of steam to husbandry; for it is evident, that were it requisite to impel the machine with a velocity equal to that of the ploughs, by dragging them with it, a great portion of the power of the engines would be uselessly expended.

Another valuable property appertaining to the machine, and which conduces greatly to its economy as a bog cultivator is, that it requires no previous outlay in the formation of roads, no preparation of any kind further than a drain on each side of it. That locomotive machine of such great dimensions and power could be so constructed as to travel on mere raw bog, was an excellence the more appreciated as it was unexpected by those persons who are conversant with the soft, unstable nature of bog. The Irish gentlemen present also pronounced Red Moss to be a fair specimen of the great mass of the flat, red, fibrous bogs of Ireland, and that neither the machine nor the ploughs would have any difficulties to encounter in that country which had not been already overcome on Red Moss, the field of experiment. The engines are capable of working up to 50 horse power, but the operations subsequent to ploughing will require a small force compared with that necessary for breaking up the surface of the bogs, to the depth and at the speed effected by these ploughs. The power consumed by each plough is estimated at about 12 horses, and the weight of the sod operated upon by the plough, from point to heel, is not less than 300 pounds. The boiler is of unusually large dimensions for locomotive engines, being suited to the use of peat as fuel, so that the culture of a bog will be effected by the produce of its drains. At Red Moss, however, coals are so cheap, being found contiguous to and even under it, that they are used in reference to turf. Eight men are required for the management of the machine and the two ploughs, or at the rate, nearly, of one man per acre; but it must be understood that this number of men will only be required for the first heavy process, and has no relation to any subsequent operations in the cultivation of bogs, nor to the application of the invention to the culture of hard land.

After passing a sufficient time on the Moss to witness the exhibition of the ploughs, and the

various other functions and properties of the machine, the party expressed to Mr. Heathcoat the extreme pleasure they had received, and their earnest hope that he would extend the sphere of his exertions by applying the invention to the culture of stiff clay soils; and more especially to carry into effect those important operations of sub-soil ploughing and improved drainage recently introduced to the agricultural world by Mr. Smith, of Deanston. To effect these processes, great power is essential, and it was evident that Mr. Heathcoat's invention was equally well adapted to them, and would be attended with results no less important than those which will arise from its application to the reclamation and culture of bogs.

LETTER FROM A FATHER, LIVING IN THE STATE OF NEW YORK, TO HIS SON IN WESTERN PENNSYLVANIA.

ON KEEPING HOGS & FATTENING PORK.

To my Son—Another branch of stock husbandry interesting to farmers, and to many who are not farmers, remains to be considered. I am now speaking of the husbandry of hogs, and fattening pork. Almost every family, especially if located in the country, should fatten every year at least one good hog. This is necessary to prevent the waste of many articles which must be cast out, and will otherwise be lost. To farmers, the fattening of pork is often a lucrative branch of their husbandry, and it might become, to many of them at least, far more so than it is, if they would learn how to conduct it in better accordance with the principles of economy. A few suggestions to aid your improvement in this important branch of husbandry, will constitute the subject of this letter.

The husbandman or householder who undertakes to fatten pork, should in the first place, be careful to procure a good breed of hogs. This is very important, far more so than seems to be generally understood. It is a fact well ascertained, that there are, among different breeds of hogs, very great differences as to their propensities, or lack of propensities, to thrive and fatten. Some are voracious eaters, and yet slow to acquire flesh; while others require but little food to keep them in a thrifty condition, and possess withal remarkable propensities to fatten. Those who best understand the subject, are not of the opinion that large boned hogs, or hogs that are capable of attaining to the greatest bodily stature, are, in general, the most profitable. Unquestionably the most profitable hogs are such as are capable of attaining to the greatest bodily stature, are, in general, the most profitable. Unquestionably the most profitable hogs are such as are capable of making the greatest amount of good pork at the least expense. These it is said are not found among hogs of gigantic stature, but are to be looked for rather among the smaller breeds.

There are now in the country several breeds of hogs, known by their distinctive names, and all recommended by their respective friends, as breeds of superior excellence. Among these are the China breed, the Byfield, the Berkshire, the Bedford, and some others. I know not their comparative merits. It may not be easy for you

to obtain any of them in their purity, but in different degrees of intermixture the most of them are to be found in nearly all parts of the country. It is not so much my object to put you on pursuit of any particular breed of hogs, as to impress on your mind the importance of seeking after and obtaining a good breed. This, it is believed, you can do, without travelling far in pursuit of your object. For further illustrations of the subject on which I am now writing, I refer you to the chapter on Swine, published in the *Genesee Farmer*, current volume, No. 1, over the signature of Ulmus. The gentleman who wrote the chapter referred to, is master of the subject on which he wrote, and his opinions are entitled to great respect.

To the householder who intends to fatten pork it is a matter of some importance to know, whether hogs that have been kept over the winter, or spring pigs, are the most profitable for that use. When it is intended to fatten pork on a small scale, in connection only with one, two or three hogs, it is, in general, the better way to depend for that purpose entirely on spring pigs, and thus save the expense and trouble incident to keeping hogs through the winter. Pigs that come in March or early in April, can, if they are of good breed, easily be made to weigh, at the proper season for butchering, 200 weight or more, after they are dressed. If taken proper care of, they will do this on an average. The pork thus obtained will, in general, have cost less than such as has been made of hogs that have been kept over the winter. As hogs do not, in general, thrive well, in the winter; as their keeping at that season is peculiarly expensive; and as they are rarely found in the spring to be much in advance of what they were in the fall, it is worthy of consideration whether it would not be better to depend for making pork chiefly on spring pigs. I propose this as a question, not meaning to be considered as answering it in the affirmative.

All preliminary questions being settled, and possession gained of a good breed of hogs, the next care of the husbandman should be, to make himself acquainted with the best methods of feeding them, and to practice accordingly. To afford them in every stage of their existence, plentiful supplies of food, at least sufficient supplies to keep them, all the while, in a thrifty and growing condition, is an indispensable requisite. A poor hog, whose carcass is composed of little else than skin and bones, is a sight dismal to behold, and whenever such a wretched animal is seen, he bears disgraceful testimony against the wisdom, the economy, and almost the moral rectitude of his proprietor. No one should undertake to keep more hogs than his means of keeping will enable him to keep, at all times, in perfectly good order. Keeping too many hogs is a very common error, and it prevails most among the poorer classes of community. It is not so well understood as it should be, that the economy of making pork consists much in making a large quantity from a small number of hogs. The sentiment which I wish to express is, that any given quantity of pork, made of hogs weighing severally when dried, 300 weight or more, comes to the proprietor at less expense, and yields him a greater profit than the same quantity would if made of lighter hogs. It is supposed the two

classes of hogs here spoken of are of the same age, and that the difference in their produce is the result either of different treatment, or a difference in the quality of their breeds. The doctrine which I desire to inculcate on you is, not to multiply hogs; but when you have set your aim at any given quantity of pork, which in your judgment is needful to be produced, employ for its attainment only the smallest number of hogs, from which it will be practicable to produce the desired quantity. If hogs that have been kept over the winter are selected for fattening, the produce of each hog in pork should not be less than 300 weight.

It has been said, hogs require plentiful feeding. As they have voracious appetites, and are not at all difficult in the choice of what they eat, their food may be drawn almost indiscriminately out of nature's vast store house. They will eat, with greediness, every kind of flesh, and there are not many vegetable productions from which a hungry hog will turn away. In the summer season scarcely any thing accommodates hogs to better advantage than a fresh clover pasture. In such a pasture they will, although no other food be given them, thrive, and make considerable acquisitions of flesh. Of the various sorts of swill commonly made use of as food for hogs, nothing need be said, except that swill of every kind is the better for having become a little sour. Care however should be taken, while aiming at this object, not to let it sour so much as to become putrid. Almost all sorts of fruit, such as peaches, plums, and especially apples, are palatable and nutritious to hogs. So too are potatoes, and all the other roots that have been enumerated in any of my preceding letters. Most of the articles here mentioned, will be useful to hogs in some degree, although given to them without cooking, but it is now well understood that almost every substance made use of as food for hogs, is susceptible of great improvement, by being boiled or steamed. That such is the fact, I am satisfied from my own experience. I have boiled old corn for hogs, and the results were such as satisfied me, that my labor had been exceedingly well applied. Cooking corn, as any other grain, fits it for the use of hogs in all respects as well as it can be fitted by grinding, or any other process. Is it not better then to cook it, and thus save the miller's toll, together with the expense and trouble incident to carrying to mill, and getting it back?

I am now ready to offer a remark which I consider as worthy of more than ordinary regard. The remark is, that at every domestic establishment, where it is intended to fatten pork, there should be provided a suitable apparatus for cooking food for hogs. This apparatus should consist of a kettle or caldron, that may cost from 5 to 7 dollars, suitably set in mason work, and inclosed with a small building, or at least covered with some sort of roof to shelter it from the storms. Such an establishment, even when pork is fattened only on a small scale, would quickly remunerate its expense in preparing food for hogs, besides being very useful for many other purposes. Here corn, or any other grain, may, with little expense, be boiled or steamed, and thus rendered far more nutritive to hogs than it will be without cooking. Here too, apples, potatoes,

pumpkins, and almost countless other vegetables, may be cooked in such a manner as to become wholesome and nutritious food for hogs.

Fattening hogs altogether upon corn, as was formerly the general practice, is now considered as too expensive to admit of justification on the principles of economy. It is a good practice to commence fattening hogs on peas. But when peas are not provided, potatoes may be used in the first stages of fattening to great advantage. These, however, more than almost any thing else, require cooking to fit them for use. It has lately been discovered, that hogs fatten well upon apples, as well, we are told, as any other food whatever. Sweet apples are supposed to be the best, but it is said any sort of apples, if cooked, answer a good purpose for fattening pork.

A FATHER.

New York state, March, 1836.

Agriculture—Our Soil.—Several stalks of Timothy may be seen at this office, which measures upwards of five feet in height, and the heads upwards of nine inches in length. This Timothy grew in a lot of 4 acres in Port Carbon, which was fenced in last year, and which had received no manure, except 150 bushels of lime ashes. The four acres produced about seven tons of hay, and the average height of the Timothy was about four feet and a half.

We have also been presented with several stalks of Timothy, one of which is five feet and a half high, which grew on Mr. BENJAMIN POTTS' farm, near this borough. Three years ago, Mr. P. purchased the property in which he now resides; it then produced three tons of hay. The present season he has procured upwards of one hundred and twenty-five tons off the same farm, one hundred of which he will sell, and can very readily procure \$20 per ton, for in the Pottsville market. Such are the fruits of the cultivation of our soil, and we know of no place which bids so fair to reward the agriculturist for his toils, than this region. We have a large body of land lying in the immediate vicinity of our borough, that might be cultivated to advantage—and we respectfully invite the attention of our agriculturists to the subject.—*Miner's Pottsville Jour.*

LEAD MINES IN ST. LAWRENCE COUNTY, N. Y.

The Montreal Gazette of 20th ult. gives these particulars of the late and valuable discoveries of lead near Ogdensburg:

Nothing has been talked of in Ogdensburg and its neighborhood for some months past but the great lead mines discovered in the course of last winter. The value of the stock has increased in the most rapid manner, as the following short history will show. Mr. T. Nash, who was the first person to find and trace out the course of the metal, succeeded in obtaining from the proprietor of the ground where it lies, a lease for ten years, for the first 5 years of which no rent is paid, and for the last 5 the trifling sum of 3s. 9d. Halifax currency, per ton of ore actually excavated. Being unable to work the mine himself, Mr. Nash sold a great portion of his interest in it, for sums varying from \$2000 and upwards per sixteenth share. He now only retains three sixteenths, which are valued at \$5,000 each. A sale of one sixteenth

belonging to another proprietor, was effected at that sum on Thursday last. The lease itself, which commences 1st of January next, is valued at \$400,000. Rapid as has been the rise in the price of shares, several of the principal merchants in Ogdensburg think they are still much under their real value. During the present season, and until the lease commences, the proprietor only permits the leaseholders to excavate 300 tons of ore. About 200 tons have been already obtained and sent to New York, where, upon analysis by the most experienced chemists, it was found to contain as nearly as possible 85 per cent of pure metal. The cost of excavation and transport to market is about \$15 per ton, and the price obtained \$70, equal to 333 1-3 per cent. The place where the metal is found is situated thirty miles from Ogdensburg, in a rugged and broken country running East and West; the veins are lodged perpendicularly in granite rock, are about 2 feet thick near the surface, but increase in width as they descend. They are supposed to be of great extent. In the neighborhood small quantities of silver have been obtained, and iron is very plentiful.

When the proprietor entered into the lease, he was of course entirely ignorant of the value of the mines.

Singular Casualty.—A correspondent at Tazewell, communicates to us the following extraordinary and distressing intelligence. While Mr. William Walker, at Speedwell, Claiborne county, an elderly gentleman was making a fence, he discovered a large spider which he killed with a stone. In afterwards prosecuting his work he had occasion to handle the same stone. A mortification shortly afterwards commenced in his hand and increased until it produced his death in 8 or 10 days. At the time he handled the stone, he had a slight sore on his hand in which the mortification afterwards commenced, which was supposed to have come in contact with some poisonous matter from the spider left on the stone. Dr. William Rogers who attended Mr. Walker, and who also had a sore finger, died with a mortification, in four days after it was first discovered that his finger was affected. Our correspondent further informs us that a number of those who assisted in laying out Mr. Walker have been seriously afflicted—some are now very low, but only the two deaths above mentioned had taken place.—*Knoxville Register.*

BERKS COUNTY SILK.—We have recently examined a specimen of *Sewing Silk*, the first ever manufactured in this county, and it was of such a quality, and the manner of its production so creditable, that it did our hearts good. It was the entire production of a young lady near Reading, one of Berks county's fairest daughters, who reared and fed the worms, spun the silk from the cocoons, and doubled and twisted it into skeins, all with her own hands. Here now is the example set to our young ladies, and we are persuaded they are about to imitate it, as a large quantity of mulberry seed has gone into different parts of the county from this place. How irresistible would be the charms of the young lady, when dressed in the fabric of her own hands' produc-

tion, and how eagerly would the *beaux* press forward for her hand!—And well might they seek such wives, for they would be worth having.—*Reading Press.*

PLOUGHING IN A GREEN CROP.

As winter evenings seem to afford a suitable opportunity for intellectual improvement, and considering that the pages of a periodical of this kind are dependent very much on correspondents for matters of information, and that it is the part of every subscriber to contribute his mite to the improvement and information of the readers of an agricultural work of this nature, I have ventured to pen a few of my thoughts.

The farmers of almost every section of country differ materially in their modes of farming, and opinion respecting the most profitable manner of converting the produce of their farms into money. Their difference of opinion is certainly allowable and natural, when we take into consideration the difference of soils, the distance from markets, the difficulty in most neighborhoods of obtaining proper help, &c. all of which the farmer has to accommodate himself to in the best manner he can. The business of a farmer, is, in my opinion, an independent, an honorable, and, when properly pursued, a profitable one; and no doubt, so long as our country continues in prosperity, the increasing demand for produce will insure to the farmer a handsome remuneration for the products of his soil.

Ploughing in of green crops, as practised in the State of New York, is so economical a mode of enriching the soil, that I have often marvelled it is not practised to a much greater extent in other places. Allow me to recommend the spreading of a coat of lime previous to ploughing in.

If the slovenly farmer, who allows his weeds to grow up unmolested and cover his fields, would, instead of this, plough them under, after a few repetitions of this, he would be surprized at the increased fertility of the soil, and save the labour of carting manure from a distance.

With respect to the best crops for turning under there are various opinions; rye and red clover are, perhaps, as much in use as any other, though some plough in oats, millet, turnips, &c. In dry situations this practice succeeds best, as by the ground remaining exposed to wet, the crop turned under would not be so likely to rot.—*N. Y. Farmer.*

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete *Manual of the Silk Culture*, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	7 00	8 50
CORN, yellow,	bushel.	86	88
White,	"	80	83
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
Louisiana 19—Alabama	"	18	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 00	9 50
Do. do. baker's,	"	—	—
Do. do. Superfine,	"	7 75	8 00
SuperHow. st. in good de'd	"	7 75	7 87
" wagon price,	"	7 50	7 62
City Mills, extra,	"	—	8 00
Do.	"	—	7 87
Susquehanna,	"	7 75	8 00
Rye,	"	5 25	—
Kiln-dried Meal, in hhds.	hhd.	—	19 00
do. in bbls.	bbl.	4 00	4 12
GRASS SEEDS, red Clover,	bushel.	5 00	5 50
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	—	2 50a3
Tall meadow Oat,	"	2 25	2 50
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	7 75	8 25
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	35	37
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	—	3 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	106	112
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	4 50	5 00
" brown and red,	"	5 00	7 00
" fine red,	"	7 00	9 00
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	1 80	—
Red,	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	38	39
" in hhds.	"	35	—
" wagon price,	"	31	—
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 25	—
To Wheeling,	"	1 50	—
WOOL, Prime & Saxon Fleeces, ...	pound.	55 to 65	30 32
Full Merino,	"	48	55 28 30
Three fourths Merino,	"	45	48 26 28
One half do.	"	40	45 26 28
Common & one fourth Meri.	"	36	40 26 28
Pulled,	"	38	40 26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.
 jy 11 4t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	16	17
Shoulders,	"	12	—
Middlings,	"	13	13 1/2
Assorted, country,	"	11	—
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	1 75	1 81
CHOP RYE,	"	—	1 87
Eggs,	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, \$8. — No. 3	"	—	5 25
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	par	Farmers Bank of Virginia 2a 1/2
Branch at Baltimore,	do	Bank of Virginia,
Other Branches,	do	Branch at Fredericksburg do
MARYLAND.		
Banks in Baltimore,	par	Petersburg,
Hagerstown,	1/2 a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do	do	Danville,
Do. payable at Easton,	do	Bank of the Valley,
Salisbury,	5 per ct. dis.	Branch at Romney, 1
Cumberland,	1	Do. Charlestown, do
Millington,	do	Do. Leesburg,
DISTRICT.		
Washington,	do	Wheeling Banks, 3
Georgetown,	Banks, 1/2	Ohio Banks, generally 3a 1/2
Alexandria,	do	New Jersey Banks gen. 1 1/2 a 2
PENNSYLVANIA.		
Philadelphia,	1/2 a	New York City, 1/2 a
Chambersburg,	1/2 a	New York State, 2 1/2 a 3
Gettysburg,	do	Massachusetts, 2a 1/2
Pittsburg,	2a 1/2	Connecticut, 2a 2 1/2
York,	1/2 a	New Hampshire, 2a 2 1/2
Other Pennsylvania Bks. 1 1/2 a 2	do	Maine,
Delaware [under \$5] 3a 4	do	Rhode Island, 2a 2 1/2
Do. [over \$5] 2a 1/2	do	North Carolina, 3a 1/2
Michigan Banks,	5a	South Carolina, 3a 3 1/2
Canadian do. 5a	do	Georgia,
		New Orleans, 6

FARMER'S REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,		\$33
11 " Permanent Bottom 28, do do do		31
13 " " 43, do do do		48
13 " Revolving Bottom 45, do do do		50

15 " " " 50, do do do 56
 20 " Large size fitted for horse-power 80, do do 90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

july 5 2t

Light near Pratt st. wharf.

OXEN WANTED.

THE Editor of the Farmer & Gardener, Baltimore, Md. wishes to purchase 4 pair of Eastern Oxen. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective oxen, price deliverable at Baltimore, and time when they can be delivered.

Editors to the eastward with whom we exchange will confer a favor which will be reciprocated by giving this a few insertions.
 jy 19

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener.
 jy 19

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Note to a correspondent—notice of the drought—extract of a letter from Carlisle relative to the crops—character of Dutton Corn—Lime and its uses—facts relating to Beet Sugar—notice of the crops—importation of Jacks—cure for disease in plumb-trees—market for cocoons and raw silk—Chaptal on the cultivation of the sugar beet and its manufacture—value of apples—cure for the Hydrophobia—application of steam to agriculture—essay on the keeping and fattening of hogs—great product of timothy—immense value of a lead mine—deadly poison of the red spider—Berks county silk—virtue of ploughing in a green crop.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 17.

BALTIMORE, MD. AUGUST 23, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 23, 1836.

We continue in this day's paper the very able article from *Chaptal's Agricultural Chemistry*, on the cultivation of the beet root and the extraction of sugar from it, and bespeak for it an attentive perusal. The subject on which it treats is one of stirring interest, and is awakening the deepest concern in many states of the Union.

There is a very general complaint in this part of the state, that the late potatoes have come up badly. Although the loss of seed and disappointment in this most estimable crop cannot now be avoided, or wholly repaired, we would recommend to all whose potato crop may have thus partially failed, to drill turnip seed on the potato rows wherever that plant has not come up, and when the young turnips are of sufficient size, to thin them out to 12 inches. By this means they may make up for much of the loss of the potato crop, as the turnips pushed forward as they will be by the manure in the potato rows will grow to immense size. In fact, we hold it to be the imperative duty of every farmer, under present prospects, to occupy every available foot of ground he may have in the cultivation of turnips, as it is the only chance he will have for making up for his disappointments past and to come, during the present season.

The last number of the *Passion Flower* fully sustains the good opinion which its accomplished authoress had won of the public. Its readings are as tasteful as instructive, and breathe a purity of morals and fervor of religious sentiment, which must commend it to every reader competent to appreciate superior talent directed by genius and enlivened by classic allusions.

We observe by a notice in Thursday's *American*, that Geo. H. Calvert, Esq., has retired

from his post as one of the editors of that excellent paper, and that his place has been supplied by Francis H. Davidge, Esq.

While we regret that the editorial corps, by the retirement of Mr. Calvert, has lost the services of a gentleman and a ripe scholar, we congratulate the editors and proprietors of the *American*, that they have been able to fill the vacancy thus occasioned by a gentleman whose varied learning, correct judgment, and refined taste, peculiarly fit him to assume the chair so lately and so ably occupied by his predecessor.

We have received a number of the *Poughkeepsie Casket*, a very neat and well filled semi-monthly periodical, published at Poughkeepsie, New York, by the proprietors of the 'Telegraph.' Its mechanical execution is of superior order, the paper on which it is printed is beautiful, and the selected as well as editorial matter evince the possession of good taste and grasp of thought in the editors. Nor should we omit to mention that the matter is of a character calculated to amuse and instruct, while its influence cannot fail to improve the morals.

We cheerfully comply with the request of the publishers to act as agent, and will forward the name of any person wishing to become a subscriber with pleasure. The subscription price is but one dollar per year.

Extract of a letter from Cecil county.

The entire failure of the wheat crops, on the Eastern Shore of Maryland, has made the farmers look very gloomy. The prospect for corn seems not to be much better. Some farmers assert, they will make but half a crop; others, that unless it rains very speedily, not even that will be made. The season has been remarkably dry, the worst possible weather for corn. Unless we have some plentiful showers there will be a complete failure.

We feel that we should be remiss in our duty were we to publish the above without, again, advising our agricultural brethren, not to let the occasion pass, without putting in an extra quantity of Turnips. Whether the corn crop be as bad as apprehended or not, a large supply of this fine root is always found to contribute to the comfort of a farmer's household and stock.

Economy among farmers is required by the times.

FOUR HOURS AT CLAIRMONT NURSERY.

We spent part of a day last week at the residence of our senior proprietor, and while we were delighted with the results of his well directed and judicious labors, we could but regret that our occupation had precluded us from the pleasure of inspecting his fields ere the scythe and the cradle had deprived them of their respective crops of Wheat, Rye, Oats and Grass.—By viewing the masses of each, however, and drawing somewhat upon our imagination, we were enabled to form a tolerably correct idea of what must have been the beauty of the scenes presented by those respective fields, when proudly waving their burthens to the breeze. To us there is no sight so acceptable—no spectacle so ravishing—as a luxuriant field of growing vegetation. In it we behold all the elements necessary to impart to our mind pleasurable emotions on the one hand, and to inspire us with gratitude on the other. But although we did not view Clairmont at those periods which would have lent so much interest around, still there was enough to satisfy the most fastidious. In viewing the well filled ricks of timothy and clover, our credulity was taxed to conceive how it were possible that so much hay could be mowed from so small a farm—the entire limits of Mr. Sinclair's farm, wood and all, is but 178 acres, and upwards of 20 acres is occupied in his Nurseries, and perhaps five in his orchard. Notwithstanding this tax upon his cleared land, his crop of Hay this year is at least 60 tons, and while we are mentioning this fact, so creditable to his industry and talents as a farmer, we would remark that we have scarcely ever seen timothy cured so completely to our liking as his is. The season to be sure was propitious to hay-making, there being dry weather the whole time of cutting and curing. But the peculiar excellence of his hay, owes as much to his careful pains-taking manner of drying it, as to any other circumstance. He is particularly attentive to preserve it alike from rain and dew, so that when made it retains all its fragrance and much of its greenness, qualities which while they are pleasing to the eye, render the provender particularly grateful to the palates of the animals which consume it. In opening the hay in the ricks, our senses were refreshed by the

delightful aroma exhaled,—and we involuntarily exclaimed, this is indeed new-mown hay.

The crops of Wheat and Rye, judging from an inspection of the stacks, were not good, the heads of the latter were especially defective, being in numerous instances unfilled with grain, in the proportion of four-fifths.

Mr. Sinclair showed us a sample of the *Shot* wheat which he raised from the seed obtained last fall, and we were surprised to find that it was no more like the original "than Hyperion to a Satyr." It had indeed degenerated into a very sorry concern.

His crop of *oats* is surpassing fine, and has well rewarded him for all his labor and pains bestowed.

It may not be amiss here to state a fact, which appears to us to be worthy of note. The Rye which grew upon a field which had been manured was very far superior to that raised upon one which was thin.

Mr. Sinclair's corn looks well, having thus far withstood the drought without material injury, and should the season be auspicious, will doubtless yield a good crop.

His late potatoes have come up much better than we had believed it possible, judging from the long continued drought.

In a part of the ground allotted to his turnips, we observed he had *drilled* in the seed, and it is no flattery to say that his soil was in most excellent tilth. Mr. S., by the way, prefers that mode of culture for turnips, believing, and with great propriety too, that they require working, which cannot well be effected when sown broadcast.

His *piggery* deserves and must receive a passing notice. We found therein, breeders, and their respective progenies, of the following sorts, the *Barnitz*—the *thin rhind*—the *Mackey*—and a cross of the *Parkinson*—our partiality lies with the *Barnitz*, though each of the others have their admirers.

Let us pass from the farm and its productions to the Nursery, for there too is much to interest the lovers of good things. His assortment of apples, pears, peaches, plums, apricots, cherries, nectarines, quinces, walnuts, grapes, and indeed, almost every other kind of fruit, is as varied as choice: nor do we recollect ever to have beheld a nursery whose rich foliage gave stronger evidences of thrift.

The shade and ornamental part of his nursery is as ample in its supply as it is diversified in kinds. There you may find the stately *Alianthus*, which, from its singular beauty, has been called *the tree of Heaven*. It is a tree of very rapid growth,

the leaves are pinnate, and when of full size, from three to four feet in length. The *Silver-leaved poplar*, with its gorgeous foliage, greets the eye of the visiter and renders it at once a favorite, whether he desires it to decorate his lawn or simply for shade; for, from its quick growth, it is desirable alike for the one location as for the other. The *Bullet wood* tree, which, from its upright growth and enormous size, is so happily suited for the lawn—the *horse chesnut*, with its partly coloured flowers, and large dark green foliage—the *catalpa* with its round head, ample, cordate bright green leaves and attractive clusters of flowers—the *Linden* with its pyramidal form, round head and odor emitting blossoms—the elm of several varieties—the *Honey locust*—the yellow locust—the *Magnolia*, with its odor distilling blossoms—the larch, so celebrated for the durability of its wood and beauty of its foliage—the sugar-maple—the mountain ash—and a hundred other kinds of ornamental trees, are all there to be found in perfection.

Before we pass to another department of the nursery we would say a word or two upon the subject of the *Yellow Locust*. This tree, so valuable for ship-building is becoming comparatively scarce on our seaboard, and, therefore, daily increasing in value. Would it not then be well for all land-holders convenient to navigation or seaports, to cultivate this invaluable tree, for timber. If grown in congenial soil, in twelve years, we are told, a tree would be worth \$5 at a low estimate. In what then, we would ask, could a field be more profitably occupied? We ask the question and leave it to our readers to profit by it.

In the *Flower* department although Mr. Sinclair's assortment is not as extensive as some others, it is choice and select, having paid more than ordinary attention in getting the best sorts of most of the desirable kinds. But though this remark is proper in the general sense, there is one exception which reflects no less credit on his taste than it does on his discernment, and attention to the public wants. He has been peculiarly fortunate in getting together a large and elegant collection of the most approved varieties of the *Dahlia*, and the surpassing beauty of the bloom of flowers of every tint and hue, now to be seen there, will bear us out in the assertion that the *amateur* who may visit Clairmont, will find little to desire that he cannot there obtain. He has been unwearied in his attention to this delightful exotic, and has culled from every quarter within his reach, all that is valuable and worthy of admiration—besides

which, he has himself propagated several new varieties of exquisite beauty;—and it is but doing him sheer justice to say that he will be able to gratify any reasonable demands which may be made upon him. This flower, so deservedly popular, appears to have found a congenial soil and atmosphere at *Clairmont*, and we think his skill and perseverance will tend greatly to increase the favor in which it is now held.

"But though last, not least in our affections," we must not omit to mention his assortment of *Mulberries*. His stock of the *Morus Multicaulis*, and *Morus Alba*, or *White Italian Mulberry*, is large, and the healthful and vigorous growth of the plants, will not fail to commend them to purchasers the coming season.

In various directions of our country we are pleased to find that the Silk culture is eliciting the most intense interest. Almost every mail brings us fresh intelligence in corroboration of this gratifying fact. We say gratifying fact, because we sincerely believe, that there is no other branch of human industry that can compare with it in the degree of its benefits, and the magnitude of its profits. While we thus believe and feel, we are not a little delighted to find that our old friend Sinclair has placed himself in a condition to meet in part the demand which the ensuing season will doubtless bring forth.

[For the Farmer and Gardener.]

THE GAPES IN CHICKENS.

Mr. E. P. ROBERTS:—I presume, it will be allowed, there are hundreds of dollars sunk every year in Maryland and elsewhere, by the loss of young turkeys and chickens, by what is commonly called the *gapes*. I lived three years in the country; the first year I had no disease among my fowls. I turned out near forty fine pullets, thinking the next summer to live well on chickens, and send some to market; but the *gapes* killed all my chickens, and the summer following I did not raise a dozen. Nothing that I could do would cure them. My neighbors were in the same situation, with the exception of one, whose wife had coops made and carried away from the house and barn, some distance in the fields; she succeeded in raising from 2 to 300. However I removed to Baltimore, and being fond of chickens, got me two Banty hens and a Rooster, this spring; the two hens hatched 17 fine chickens, more thriving ones I never saw; when about 3 or 4 weeks old, they all took the *gapes* and 14 died; the 3 that lived, had the disease but lightly. The first twelve which died were thrown into the commons: when the 13th died, I picked it up to throw out, but I concluded I would see what could ail the wind-pipe, and took out my penknife and opened the neck of the chicken, so that I could see the wind-pipe from one end to the other, I discovered the pipe was nearly full of something, which I could see; I then with the sharp point of my knife, opened

the pipe from end to end, and with the point lifted out six small fishing worms, all alive, which crawled about, and on examining the 14th chicken there were seven in its windpipe. This kind of worm is among the dirt that collects, and is swept up, and thousands of them are to be found in barn and stable yards. This worm is smaller than four common fishing worms, and appears in colour of a brownish yellow hue, and has a sort of dull yellow ring around its head—has a bad smell, yet fish bite best at this kind of worms.—All chickens kept from yards of dwellings, barns, and stable yards, out in the short grassy fields will never have the gapes, because those worms are never there for the hen to scratch up. I hope the farmers and all who raise chickens and turkeys, will attend to this matter, and would suggest to those of them who may have chickens die with the gapes to examine for themselves.

WM. W. WAITE, Sr.

I presume those that get over the gapes, never have more than one or two in the wind-pipe.

THE CROPS, &c.

EARLY CORN.—We received on Monday last, a few roasting ears of early corn, at the hands of Mr. Henry A. Oudinot. He informs us that it is a species of corn, denominated *Black Hawk*, which we think is not generally known by this appellation. Also, that it was raised within the short period of six weeks in his own garden.—Mr. Oudinot is entitled to praise for his success in producing the earliest corn in our borough. As early as a week before this, he informs us, he had corn on his table.—*Miner's Journal, Pottsville, Pa.*

The crops of small grain in Muskingum county will yield more than an average aggregate of grain, for though perhaps not generally quite so heavy as last year, more was sown. Farmers in some neighborhoods complain much of the depredations of the grub worm upon their corn. Corn crops generally are not as fine as we have seen.—*Zanesville (Ohio) Gazette.*

FAMINE.—Our citizens are occasionally notified of the scarcity of grain, and the consequent inconvenience to the poor. We notice that there was a large sale of rye in New York on Friday, and as it was imported from Europe, it might be fair to expect that the quantity would serve to supply, in some degree, the deficiency resulting from the general failure of the crops, and thus keep down the price of bread. The following notice of the sale will show the account to which the produce of the grain is to be charged:

RYE.—Yesterday, 24,000 bushels of Dutch Rye was sold at a dollar. It was taken by several distilleries who united in the purchase. We seldom record so large a transaction.

The fact, however, that Rye can be imported and sold for a dollar per bushel, will remove the fearful apprehensions of many of our citizens.—*U. S. Gazette.*

WHEAT.—There has been very little in market, the weather having been too damp and wet to enable the farmers to get it out. The price in this market is nominally \$1 25 for Red, and \$1 30 for White. But few sales making—the

farmers being unwilling to take that price, and the purchasers not disposed to advance. In Richmond, little has yet been done in the article, though sales of small quantities have been made as low as \$1 30.—In Petersburg, the *Intelligencer* says:

The price of Wheat continues unsettled; none which can be called merchantable has as yet appeared—the few neighboring crops now delivering only weigh 51 lbs. to 55 lbs. to the bushel—they being from \$1 25 to \$1 50 as in quality.—Very prime would command a high price; from present appearance very little if any such can be expected in our market, nor will the quantity exceed one fourth of an average crop.—*Lynchburg Virginian.*

The Berks County Journal, in noticing the signs of the times says:

"The weather has been favorable, however, for vegetation, and the summer crops are luxuriant beyond all expectation. The Oats was never better. The same remark applies to the Corn, except where injured by the worm. The second crop of Hay will be little inferior to the first, and the Buckwheat promises to be abundant.—There seems to be no danger of a famine in the country, though wheat and rye will bear good prices during the coming year.

We may add that large demands upon the grain of the middle and Southern States, will be made from New England. Rye in that section of the country, has afforded a poor return; and Indian Corn, though much helped in prospect by the warm weather in the first week of this month, is still backward and unpromising; and may be almost entirely cut off by an early frost.—*U. S. Gazette.*

THE CROPS.—Accounts from almost every quarter represent the late freshets to have been unexampled in number and very destructive in their effects. The crops of Cotton, Rice, Corn, Wheat, and Tobacco, in the Southern and Western States have been much injured. The crops of Cotton and Wheat throughout the United States will be greatly diminished, in consequence of the season, the freshets, and the depredations of the fly. These articles may, therefore, be expected to be high next year. The Lexington Union States, that the lower section of the James River Canal through the mountain is almost entirely destroyed, and that the upper section is greatly damaged. It is thought that 100,000 dollars would hardly repair it. The James River has been very high—the bridge at Lynchburg was partially damaged—a quantity of salt, sugar, &c. left in the cellars at Richmond, and the low grounds generally had been injured. The New York Canals, also, received considerable injury.—*Tennessee Farmer.*

THE GROWING CROPS IN THIS VICINITY.—The Corn crop although unpromising in the spring, in consequence of too much wet, at this time bids fair to be the most abundant we have had for years. The Tobacco crop also promises well. Rains have been frequent and plentiful, so far throughout the summer.

The accounts from every quarter of the country agree that the deficiency in the wheat crop is without a parallel for the last ten years. In some

sections a fourth, in some a third, and in others a half of a crop will be made. An average crop will not be made any where in the wheat growing region, so that economy and carefulness must be used by the farmer to make both ends meet.

The corn crop in lower Virginia, is said to be very fine; also in the valley. So that with an abundant oat crop, the people of Virginia at least can make out to live.—*Danville (Va.) Reporter.*

HARVEST IN GREAT BRITAIN.—The Boston Courier referring to the late English papers, says: "The harvest, it is said, will be abundant. The weather for the last fortnight, in the neighbourhood of Liverpool, had been all that the farmer could wish. The copious rains, which succeeded to the drought of the early part of June, had rendered the crop of hay an average one. The accounts in the provincial papers are very favourable, and the only drawback from the rejoicing consequent upon the prospect of a fruitful season, is the state of the Potato crop, in which there seems likely to be a partial failure in some parts of England and Scotland, and a total one in Ireland. The cause of this failure is not stated."

IMPORTANT TO FARMERS.—Judge Strong, in a recent case in our Common Pleas, has decided that no one has a right, when making a division fence, to run half of the same on the lot of the neighboring owner—but that it must be wholly on the land of him who makes it. The case which called forth this decision, was an action of trespass for cutting a ditch in a meadow land, for the purpose of a fence; it appears that the defendant in this case cut some five feet wide on each side of the line, which constituted the boundary between him and the plaintiff, and the Judge in his charge enforced upon the jury that by no existing statute was the making of a fence on the lot of an adjoining owner justified; but that those constructed half on one side and half on the other, must be constructed by mutual consent; otherwise legal measures could be instituted for damage, &c. The owners of real estate should recollect this decision, as cases in which it would be applicable, are not unfrequent in our courts of justice.—*Northampton Courier.*

TRANSPLANTING IN AUTUMN.

We have observed that many cultivators are afraid to remove a tree in autumn until the leaves have either dropped or turned yellow; but we can assure them that unless the weather be very dry, they may begin with great safety, as soon as the sun has crossed the line. We have seen a cherry tree of a good size, in full leaf, and very green,—transplanted exactly at that period, and we have never seen any trees that succeeded better.

We would remark, however, that it was only removed about 30 rods, and the fibrous roots had no opportunity to wither.

We are satisfied that trees transplanted early in autumn, are likely to do better than those that are removed late in the season. The roots will begin to grow, and derive the nourishment from the soil, which protects them, if in any degree

tender, against the severities of winter, and in all cases where the *spongloles* can be preserved fresh and uninjured,—but more especially where a considerable portion of the earth can be removed with the roots. The leaves should be carefully retained so that the elaboration of the sap may continue without interruption.

Where the roots have to remain for any considerable time out of the ground, however, we think it would probably be best to remove the leaves entirely. We once took up a pear tree in autumn, more than a fortnight before the sun crosses the line, which was wholly deprived of its leaves, and kept about ten days unplanted, without its sustaining the least injury. We supposed it did better from losing its leaves, because the office of these, is to expose the sap to the air and light,—a process which exhales a great quantity of water; and as a constant draft towards the leaves is maintained, and as a corresponding supply can be derived from the roots, we think the effect of the leaves must be partially to exhaust the sap. This reason accords with the practice of some nursery men who remove the leaves from scions in order to preserve them from withering.

[From Chaptal's Agricultural Chemistry.]

ON THE CULTIVATION OF THE BEET ROOT, AND THE EXTRACTION OF SUGAR FROM IT.

(Continued.)

ON THE CONCENTRATION OR EVAPORATION OF THE PURIFIED JUICE.

As soon as the bottom of the evaporating vessel is covered with juice, the fire is kindled, and ebullition is produced as speedy as possible,—the juice which continues to flow from the clarifying boiler supplying the loss occasioned by evaporation.

When the boiling juice marks 5° or 6° ($=1.036$ to 1.044) of concentration, a portion of animal charcoal is thrown in, and this is continued, the quantity being gradually increased, till the juice is concentrated to 20° ($=1.131$.) Sixty pounds of Charcoal are used in this manner, for a quantity of juice equal to from 422 to 475 gallons.

After having brought the liquor to the twentieth degree of concentration, the boiling is continued till the sirup marks 27° or 28° of the hydrometer, ($=$ specific gravity of 1.231 to 1.242 .) The sirup being mixed with animal charcoal, requires to be filtrated. This operation, as it is usually performed, is very tedious, and sometimes becomes impracticable; the consistency of the sirup is increased two or three degrees by cooling, and the pores of the filterer becoming, in a short time, obstructed by the finely divided charcoal, the thickened liquor can no longer pass through them.

To obviate these inconveniences I place a large willow basket over a boiler: into the basket I put a coarse bag of the same diameter, but about two feet deeper. I pour the thickened sirup into the bag; for some minutes filtration goes on very well, but as the liquor grows thick in consequence of its cooling, filtration slackens and at length stops; as soon as I perceive this, I turn the borders of the sack into the basket,

and upon them place a wooden trencher, which I gradually load with cast iron weights till the necessary pressure is produced; filtration is by this means completed in two or three hours.

The charcoal contained in the sack is leached with warm water, and afterwards submitted to the lever press to force from it all the sirup contained in it. The waters used for these leachings during one day, are the next day mixed in the clarifying boiler with the juices that are then prepared.

The conversion of juice into sirup should be done as speedy as possible; for when evaporation is slow the liquid becomes pasty, as part of the sugar is decomposed and passes to the state of molasses, and the difficulty of boiling is increased. It is necessary then that evaporation should be carried on with violent boiling, and for this reason the boilers made use of should be broad and shallow, so as to heat only layers of the liquor, and in order that ebullition may take place at once through the whole mass of the liquid; the furnaces likewise should be so built as to heat the boilers equally. The evaporation of 422 gallons should be completed in four hours.

The operation is known to be good and the juice to have been well prepared, when ebullition takes place without causing the liquor to swell and blister: when there appears on the surface only a brownish foam, the bubbles of which disappear immediately upon being pressed with a spoon, and when a dry sound is produced by striking upon the liquor.

If, on the contrary, there forms a whitish, gluey foam, which does not subside, the operation is bad; evaporation requires a long time and the boiling is difficult. In this case a little butter is, from time to time, thrown upon the surface to quiet the effervescence: the quantity of animal charcoal is increased, and the fire is checked. All these palliatives, however, do not correct the radical fault, and such appearances always pre-
sage bad results.

ON BOILING THE SIRUP.

The sirups prepared over night are the next day dried to extract the sugar from them.

The products of two operations upon 5000 beets are mixed together in a boiler, whence they are taken to form four successive dryings or boilings. One fourth part of these sirups is thrown into a round boiler, forty inches in diameter and twenty in depth; under this a fire is kindled; the liquor is made to boil, and the boiling continued till the operation is ended.

The process is judged to be going on well if the liquor exhibits the following symptoms:

1. When the sirup breaks short, and the bubbles upon returning into it produce a sensible sound.
2. When a dry sound, like that produced by striking a stick, is returned from the surface of the sirup, when it is struck with a skimmer.
3. When the bubbles of foam disappear immediately upon being pressed with a spoon. The boiling is always perfect when the interior surface of the boiler is found, after the operation is ended, to retain no trace of blackness.

The sirup is known to be bad by the following signs:

1. When a thick, whitish, gluey foam appears upon the surface of the liquor.

2. When the liquor swells and foams and does not subside.

3. When the escape of puffs of acid steam announces that the boiling substance is burnt.

The evils are palliated and the boiling terminated,

1. By removing the foam as fast as it forms.
2. By throwing into the substance small pieces of butter.
3. By stirring the liquor with a large spatula.
4. By mixing with it a little animal charcoal.
5. By moderating the heat.

To avoid a portion of these evils, I throw a flood of sirup into the boiler, and remove the whitish foam that arises; I stir the sirup strongly three or four times before boiling commences and skim it each time. The scum that removed is thrown into a bucket with that which is produced during all the time that the liquor is boiling; these skimmings are afterwards subjected to the lever press, and the remainder washed, to obtain from it all the juice contained in it. The sirup obtained by pressing upon one day is added to the liquor that is boiled the next, and the water of the leaching is thrown into the evaporating boiler.

When the sirup in the drying vessel shows itself to be bad, especially when it gives out puffs of sharp steam, which declare the substance to be burnt, it is necessary to arrest the process and to treat the sirup with an additional portion of animal charcoal. In this case the liquor is diluted with water till it falls to 18° or 20° of concentration, ($=$ specific gravity of 1.143 to 1.161) and then the charcoal is added; after which ebullition is renewed till the sirup rises to 28° , ($=1.242$), when it is filtered and dried. I have found this to be the only way in which I could restore a sirup which had been injured in the process.

I have myself made particular observations upon the thick, whitish unctuous and paste-like substance, which is almost always found upon the sirup, and which, when it is abundant, prevents the drying from being terminated. This substance renders the sirup ropy, adheres to the sides of the boiler, which are blackened by it, separates itself from the sirup, in proportion to its concentration, and prevents the object proposed from being attained.

I have noticed that the quantity of this substance was in proportion to the germination of the roots, and that it was increased by the incomplete purification of the sirup, and also by a slow evaporation. Animal charcoal produces an astonishing effect in lessening the quantity of it; sometimes if well employed, the formation of it is prevented, or that which is produced is made to disappear.

This substance, which during the first years of my establishment, I often collected in large quantities, is thickened and hardened by cold; it is insoluble in water or alcohol: it burns with a white and inodorous flame; and possesses all the characteristics of vegetable wax, from which it is in no wise different.

The drying is ended when the boiling sirup marks 44 or 45°, (=specific gravity of 1.440 1.454.) The time for removing the sirup from the boiler may be known by the following signs:

1. Plunge a skimmer into the boiling sirup, and upon withdrawing it pass the thumb of the right hand over its surface; mould the sirup which adheres to the thumb between that and the fore finger, till the temperature be the same as that of the skin; then separate the thumb and finger suddenly; if the boiling be not completed, no thread will be formed between the two; if there be a filament, the boiling is well advanced; and the process is completed as soon as the filament breaks short, and the upper part, having the semi-transparency of horn, curls itself into a spiral. This manner of trying the sirup is known by the name of *proving*.

2. The second mode of judging of the completion of the process, is by observing the time when the sirup ceases to moisten the sides of the boiler, and then blowing forcibly into a skimmer which has just been immersed in it; if bubbles escape through the holes of the skimmer which ascend into the air in the same manner as soap bubbles do, the liquor is considered to be sufficiently boiled; the fire is therefore immediately extinguished, and the sirup in a few minutes after conveyed to a great copper boiler, which is called the *cooler*.

The cooler is placed in an apartment of the manufactory near the boiler; its capacity should be such as to allow of its receiving the product of the four successive boilings. The cooling which the sirup experiences in this vessel, quickly produces crystallization; the crystals form first at the bottom, where they collect in a thick bed, having however no union of particles. Gradually the sides become covered with solid crystals and at length there is formed upon the surface a crust of sugar which thickens insensibly. At this time the contents of the cooler are taken out to fill the moulds in which the process of crystallization is to be completed.

The moulds used in this operation are known in refineries by the name of *grandes batardes*. They are large conical vessels of baked earth, with a small opening at the apex, and capable of containing about 100 pounds of the evaporated sirup. The different sizes are distinguished in the manufactories as *grandes et petites batardes*, according to their different capacities; they are numbered 1, 2, 3, 4, &c. Moulds made of resinous wood have supplied the place of these in some manufactories; this change was proposed by M. Mathieu de Dombasle, and in those countries where wood is abundant, it is a good one in point of economy.

The moulds may be soaked in water and then drained, before the sirup is put into them; the opening at the point is stopped with old linen, and the vessels themselves supported against the walls to receive the liquor.

The contents of the cooler are first thoroughly stirred and mixed, and then thrown gradually into the moulds, a portion being put in each in turn, so as to fill them all equally: an interval of an inch is left between the surface of the sirup and the top of the mould.

Crystallization is hastened by carrying the moulds, as soon as they are full, into the coolest apartment of the manufactory.

The sirup arising from the employment of 10,000 pounds of beet roots, if the operations are well conducted, will fill nine *grandes batardes*, each *batarde* containing from 85 to 90 lbs. of evaporated sirup.

When the different boilings are made slowly, or experience any interruption, the moulds are partially filled from the cooler, without waiting for the last product; otherwise crystallization would be completed in the cooler, and all the contents of it would form a mass which could not be poured into the moulds to extract from it the molasses.

Cooling causes the formation of crystals upon the sides of the moulds and the surface of the liquor. As soon as this crust of crystals has acquired some degree of consistency, it must be broken with a wooden spatula, and the whole contents of the mould carefully stirred, so as to collect in the centre the crystals that have formed upon the sides. When this has been done the crystallization is allowed to go on undisturbed.

Three days are more than enough for the formation of all the crystals.

The operation may be known to be good,—

1. When the surface of the crystallized mass is dry, so that in passing the hand over it neither moisture nor adhesiveness is perceived.

2. When the crust settles and breaks in the centre; in this case the refiners say the sugar makes a *fountain*.

3. The yellow color of the crystal is generally a good indication, but in this case of beet sugar it is unimportant, because the color may have been blackened by the animal charcoal employed when the filtration of the clarified liquor has not been carefully executed; and this color is easily made to disappear by clarification and refinement.

The plugs that close the points of the moulds are then taken out, and the moulds are placed in earthen pots, that the molasses may flow from them. These pots should be large enough to contain five or six gallons of liquor.

The crystals will be deprived of the molasses which unites them in about eight days; the moulds are then carried into an apartment which by means of a stove, is kept constantly heated to 18 or 20° of Reaumer, (=72.5° and 77° Fabr.) and there placed in fresh pots.

The next operation is that of leaching the contents of the moulds, in order to obtain from them that portion of molasses which refused to flow out. For this purpose the surface of the loaves is carefully broken and scraped with a blade of a knife, so as to smooth it, and then there is thrown upon each one about half a pound of a white sirup, marking from 27 to 30° (=specific gravity of 1.231 to 1.261.) This sirup is only a portion of that which is prepared for boiling.

This sirup penetrates into the loaves, diluting and carrying off the molasses, which is three or four degrees more concentrated than itself. If the concentration of the sirup were less, it would dissolve the sugar; if more, it would render the

sugar adhesive. This operation is renewed two or three times at intervals of two days.

When the loaves have remained a month in the stove-room, they can be taken out of the moulds; they are then found to be dry and entirely deprived of molasses, and are piled up in the store-house, where they are kept to be refined.

[To be continued.]

[From the Northampton Courier.]

WHO WOULD NOT BE A SILK GROWER?

Taking for granted, that the Chinese Mulberry can, with proper care, be grown in our climate, and whereas the most appropriate soil for the Chinese Mulberry can be easily obtained, even waste land, or of little value, if high and dry, will do well, why cannot our unfortunate poor improve and better their condition, not only obtaining the necessaries, but the conveniences of living for themselves and families? Let us suppose a case—which is no more than can be done—and let the trial be made before pronouncing the experiment only *moonshine*.

A poor man may hire an acre of poor, sandy, gravelly, hilly ground of little value for any other purpose, and suppose he pay a rent of six dollars for the acre, and commence operations with the purchase of 100 cuttings at six dollars the hundred—these cuttings being set out 8 to 18 inches apart, would the first year require but very little space, the residue might be used for any other purpose, and sufficient to pay for the culture of the cuttings. These cuttings the first year would furnish each half a pound of foliage, or fifty pounds of leaves, more than sufficient to feed 1500 worms. These 1500 worms being attentively fed, would furnish half a bushel of cocoons, a quantity sufficient to make a pound of silk the first year. It being admitted that the vegetables and other crops taken from the residue of the acre, would pay all expense of culture and feeding the worms, &c. and then the result of the first year's experiment would be as follows:

Rent of one acre of land,	\$6 00
Cost of 100 cuttings,	6 00
Cost of 2000 silk worm eggs,	50—12 50
½ bus. of cocoons, 5 lbs. 40 c.	\$2 00
100 trees from cuttings, 25 ct.	25 00—27 00

Deduct outlay, \$12 50, first year's profit, 14 50

Second year—Suppose all the cuttings to have lived, and formed good trees. These being set at the distance of 3 feet apart in the row, and the rows three feet apart, the trees headed down to two or three buds above the root, the roots there to remain permanently, the tops and branches to be used for cuttings, and the sprouts from the roots put down for layers. Here would be 100 roots, which would average each ten layer trees, making the increase from the roots 1000 trees—the tops and branches of which would make at least 1000 cuttings, making no account of the leaves which might be taken and used before or at the time of laying down.

The 1000 cuttings might furnish 500 pounds of leaves, sufficient to feed 1000 worms, and allowing 3000 worms to make a bushel of cocoons or 1 pound of silk, would yield 5 bushels of cocoons or 5 lbs. of reeled silk, worth at least 20 dollars, perhaps more. According to the above statement

the second year would produce the following result:

Rent of land,	\$6 00
15 days labor,	15 00
Collecting leaves and feeding of	
15,000 worms	34 00
7 weeks board, at \$2,	14 00—69 00
On hand 100 standard roots,	
worth 25 c.	\$25 00
1000 layer trees produced, 25 c.	250 00
1000 trees from cuttings,	250 00
5 bushels of cocoons, \$4,	20 00—545 00
Deduct outlay, \$68, supposed gain the	
second year,	476 00

If the foregoing is a true and fair presentation of the case and sufficient has been allowed for labor, &c.; if by the same process, it is carried out another year, the result would be found more astonishing, but perhaps not more so than the fact, that all the Chinese Mulberry or *Morus Multicaulis* now in Europe and America, is the product of only two shrubs or trees brought from Manilla, some 14 or 15 years since, into France and thence to America within the last six or seven years, and the product of a few genuine seed imported into Northampton, Ms. from Canton in 1834. The luxuriant foliage of which, and its propensity to multiply its stalk and foliage, beyond any mulberry we have seen, and as we have seen, and as we think, on experiment, is by the silk worm preferred to any other leaf, must be highly approved of when its qualities shall be more generally known.

On entering upon the **THIRD** year, it appears, that at the close of the second year, there was a stock on hand, the product of 100 cuttings, which in two years had been multiplied so as to give 100 roots the first year and at the end of the second year in addition to the 100 roots, 1000 layer trees and 1000 trees from cuttings, all with roots—these 2100 roots at the end of the third year would probably yield 2100 equally good trees with roots—and the tops and branches of the 2000 trees from layers and cuttings of the second year, would probably furnish 2000 cuttings, the foliage of which, (besides making as many good trees) allowing half a pound to each, would be sufficient to feed 300,000 worms; and allowing 3000 worms for every bushel of cocoons, would produce 100 bushels of cocoons, sufficient to make 100 pounds of reeled silk. The 2100 roots set three feet apart each way would not require half an acre of land—and the 20,000 cuttings set in rows one foot and nine inches apart and from 8 to 18 inches apart in the row, would give ample room for the branches of the cuttings to have the benefit of air and sun, and require only about $1\frac{1}{2}$ acres of land or 2 acres in the whole.

On hand at the close of the third year:	
2,100 roots of two years old at 25 c.	\$525 00
21,000 large trees, 25 c.	5,250 00
20,000 cuttings trees, 25 c.	5,000 00
100 bushels cocoons,	400 00
	\$11,175 00

Deduct expenses as follows:

The 2,100 roots and 20,000

cuttings, say 2 acres of	
land at \$6,	\$12 00
Allowing 2 hands 120 days	
work to set and cultivate	
the above at \$1 per day,	240 00
Allowing two hands six	
weeks to feed 300,000	
worms, equal to 84 days,	
at \$1 per day,	84 00
46 weeks board of hands at	
\$2,	92 00
Expenses of hurdles, build-	
ings fitted up for feeding	
worms permanently,	806 00
Allowing for the failure of	
100 old roots,	25 00
Allowing for the failure of	
1000 large trees,	250 00
Allowing for the possible	
failure in setting 20,000	
cuttings, 33 1-3 per ct.	1,666 00
25 per cent. for over calcu-	
lation,	2,000 80—5,175 90
	\$6,000 00

Leaving the cultivator the probable gain as a clear profit, in three years, of \$6,000. Provided however, should the above be considered as an extravagant result, we invite the examination of others, to point out the errors or miscalculation in the above result.

SILK CABINET.

THE CHINESE MULBERRY.—A correspondent of the President of the Massachusetts Horticultural Society, (*Mr. Emilien de Wael*) whose letter is published in the *New England Farmer*, says that the cultivators of the *Morus Multicaulis* in Belgium, on the approach of winter, cut off the wood of the plant a few inches from the ground, and cover the trunks with dead leaves, to protect them from the severity of the weather. In *Manilla* and in some parts of *China* the plants are pruned in the same manner, in order to keep them in a shrubby state. The *Morus* is planted in fields as Indian corn is here.—*Belvidere Apollo*.

[From the Southern Agriculturist.]

CHOLIC IN HORSES.

CHARLESTON, April 12, 1836.

Mr. Editor.—I herein send you a receipt for curing the cholic in horses. If you think it worthy a place in your journal, you will perhaps confer a service on some of your readers, by giving it publicity.

A few weeks ago, I was travelling into the country. Before I had progressed many miles, my horse showed evidently that he was laboring under cholic. He became quite loose in the bowels; swelled, and was in great agony. Fortunately, I met with a wagoner, whose kindness relieved my beast from his illness, and myself from, perhaps a long walk. His remedy consisted in tying upon the horse's bit, a piece of tobacco. This being done, he told me I could proceed upon my journey; assured me, that the horse would get well before I got one mile, and that he would not be troubled again, while the

tobacco remained on the bit. I did as he directed, and to my perfect astonishment, my horse became relieved as soon as he swallowed the saliva created from the tobacco.

I am your's, Mr. Editor, I. B. S.

We think our correspondent must be somewhat mistaken, as to the effects of the tobacco. We are of opinion, that the tobacco used upon the bit, is a preventive of the cholic, in its incipient state; but once the cholic has been violent upon the animal, we are confident, that a more active remedy must be used. In violent stages of cholic, we have seen tobacco tea given with excellent success.

We have heard of many receipts for this disease, with which horses are so frequently plagued; but we venture to assert, that none will be found more simple and sure, than the following:

Take of laudanum six or seven table spoonsful—of mustard the larger part of a bottle—mix these in a pint of whiskey or water, and give the mixture in a horn or bottle to the horse. We have seen this dose applied to horses which were so far gone with cholic, as to be perfectly cold and stiff. In one instance, when the horse could not swallow, the mixture was administered with an injection pipe, and the horse recovered in an hour afterwards.

When the severe pain has been alleviated, a dose of oil should be given. One pint will answer as a dose.—*Editor*.

The sheep in Pennsylvania amounted in 1810 to no more than 62,000, two thirds of which belonged to Washington County. In that county at present there are 700,000, all of approved breed, which yield 1,925,000 lbs. of wool per annum.

THE SILK MANUAL.

JUST published and for sale by *Sinclair & Moore* and *Robt. Sinclair, Jr.*, at the *Maryland Agricultural Repository*, Light near Pratt street, Baltimore, a complete *Manual of the Silk Culture*, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

POTATO OATS.

100 Bushels seed potato oats—a choice article—for sale by **JAMES MOORE**, Light, near Pratt st. Mh 22 at the Maryland Agricultural Repository

CONTENTS OF THIS NUMBER.

Notice of continuation of Chaptal's essay on the Beet Culture, &c.—recommendation to sow turnips—notice of the "Passion Flower"—of the retirement of Mr. Calvert and of his successor—of the Poughkeepsie Cabinet—gloomy prospect of the crops in Cecil county—four hours at Clairmont—cause of the gapes in chickens—brief notices of the crops—the law of division fences—transplanting in autumn—Chaptal's essay on the Sugar Beet, and he mode of making sugar therefrom—profits of the Silk Culture—cure for the cholic in horses—prices current—advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	7 50	8 50
CORN, yellow,.....	—	90	91
White,.....	—	85	87
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	—	—	—
Upland,.....	—	18½	20
Louisiana 19—Alabama	—	—	21
FEATHERS,.....	pound.	50	53
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	9 00	9 50
Do. do. baker's,.....	—	—	—
Do. do. Superfine,.....	—	7 75	8 00
SuperHow. st. in good de'd	—	7 75	7 87
" " wagon price,.....	—	7 50	7 62
City Mills, extra,.....	—	—	8 00
Do. " " " " " " " " " " " "	—	—	7 87
Susquehanna,.....	—	—	8 00
Rye,.....	—	5 00	5 25
Kiln-dried Meal, in hhd's.	hhd.	—	19 00
do. in bbl's.	bbl.	4 00	4 25
GRASS SEEDS, red Clover,.....	bushel.	4 50	4 75
Timothy (herds of the north)	—	2 75	3 25
Orchard,.....	—	—	2 50a3
Tall meadow Oat,.....	—	2 25	2 50
Herds, or red top,.....	—	1 00	1 25
HAY, in bulk,.....	ton.	—	20 00
HEME, country, dew rotted,.....	pound.	6	7
" " water rotted,.....	—	7	8
Hogs, on the hoof,.....	100lb.	8 00	8 25
Slaughtered,.....	—	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	—	14	—
refuse,.....	—	12	—
LINE,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	—	—	—
OATS,.....	—	35	37
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	—	1 12	—
Lady,.....	—	—	—
PLASTER PARIS, in the stone,.....	ton.	—	3 25
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	100	112
Susquehanna,.....	—	—	—
TOBACCO, crop, common,.....	100 lbs	4 50	5 00
" brown and red,.....	—	5 00	7 00
" fine red,.....	—	7 00	9 00
" wrapery, suitable	—	—	—
" for segars,.....	—	5 00	10 00
" yellow and red,.....	—	6 00	8 00
" good yellow,.....	—	8 00	12 00
" fine yellow,.....	—	12 00	16 00
Seconds, as in quality, ..	—	4 00	5 00
" ground leaf,.....	—	5 00	8 00
Virginia,.....	—	7 00	14 00
Rappabannock,.....	—	—	—
Kentucky,.....	—	8 00	14 00
WHEAT, white,.....	bushel.	1 80	—
Red,.....	—	1 25	1 75
WHISKEY, 1st pf. in bbl's.....	gallon.	38	39
" in hhd's.....	—	36	37
" wagon price,.....	—	35½	—
WAGON FREIGHTS, to Pittsburg, ..	100 lbs	1 25	—
To Wheeling,.....	—	1 50	—
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,.....	—	48 55	28 30
Three fourths Merino,.....	—	45 48	26 28
One half do.....	—	40 45	26 28
Common & one fourth Meri.	—	36 40	26 28
Pulled,.....	—	38 40	26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	15	16
Shoulders,.....do.....	—	12	—
Middlings,.....do.....	—	13½	13½
Assorted, country,.....	—	10	11½
BUTTER, printed, in lbs. & half lbs.	—	20	37
Roll,.....	—	20	25
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	—	25 00	45 00
Dry,.....	—	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 75	1 81
CHOP RYE,.....	—	—	1 87
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	—
No. 2,.....	—	9 50	—
Herrings, salted, No. 1,.....	—	3 50	3 62
Mackerel, No. 1, \$8...—No. 3	—	—	5 25
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....par	do	Farmers Bank of Virginia 1a½
Branch at Baltimore,.....do	do	Bank of Virginia,.....do
Other Branches,.....do	do	Branch at Fredericksburg do
MARYLAND.		Petersburg,.....do
Banks in Baltimore,.....par	do	Norfolk,.....do
Hagerstown,.....½	do	Winchester,.....do
Frederick,.....do	do	Lynchburg,.....do
Westminster,.....do	do	Danville,.....do
Farmers' Bank of Mary'd, do	do	Bank of the Valley,.....do
Do. payable at Easton,.....do	do	Branch at Romney,.....1
Salisbury,.....5 per ct. dis.	do	Do. Charlestown,.....do
Cumberland,.....1	do	Do. Leesburg,.....do
Millington,.....do	do	Wheeling Banks,.....3
DISTRICT.		Ohio Banks, generally 3a3½
Washington,.....	do	New Jersey Banks gen. 1½a2
Georgetown,.....Banks, ½	do	New York City,.....½a
Alexandria,.....	do	New York State,.....2½a3
PENNSYLVANIA.		Massachusetts,.....2a2½
Philadelphia,.....½a	do	Connecticut,.....2a2½
Chambersburg,.....½a	do	New Hampshire,.....2a2½
Gettysburg,.....do	do	Maine,.....2a2½
Pittsburg,.....2a2½	do	Rhode Island,.....2a2½
York,.....½a	do	North Carolina,.....3a3½
Other Pennsylvania Bks. 1½a2	do	South Carolina,.....3a3½
Delaware [under \$5].....3a4	do	Georgia,.....3½a4
Do. [over 5].....½a3	do	New Orleans,.....6
Michigan Banks,.....5a	do	
Canadian do.....5a	do	

FARMER'S REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25. THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	—	\$33
11 " Permanent Bottom 28, do do do	—	31
13 " " " 43, do do do	—	48
13 " Revolving Bottom 45, do do do	—	50

15 " " " 50, do do do 56
20 " Large size fitted for horse-power 80, do do 90
His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

au 23 2t Light near Pratt st. wharf.

OXEN WANTED.

THE Editor of the Farmer & Gardener, Baltimore, Md. wishes to purchase 4 pair of Eastern Oxen. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective oxen, price deliverable at Baltimore, and time when they can be delivered.

Editors to the eastward with whom we exchange will confer a favor which will be reciprocated by giving this a few insertions.

au23

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener.

au23

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1.50 per lb.

R. SINCLAIR, Jr.

aug 23 Light, near Pratt street wharf.

Printed by Sands & Neilsen, N. E. corner of Charles and Market streets.

CO-PARTNERSHIP FORMED.

JAS. MOORE respectfully informs the public that he has associated Mr. Richard F. Maynard with him in the business formerly conducted under the firm of *Sinclair & Moore*, and subsequently, by himself.

The business of the new firm will be conducted under the name of *MOORE & MAYNARD*, and they flatter themselves that the long experience of the first named, combined with the practical knowledge of the last, will enable them to give entire satisfaction to those who may be pleased to extend towards them their confidence and patronage. To such they would tender, in advance, the assurance that no exertion will be left unessayed by them, to fill every order with which they may be honored, with promptitude and fidelity.

They have now on hand, and intend constantly to keep a complete assortment of every kind of *Agricultural Implements, Garden Tools, Field Seeds*, and indeed every thing tending to increase the working facilities of the farmer and planter, and to lose no opportunity of adding such inventions to their already extended list, as, in their opinion, will be promotive of the interests and convenience of the Agricultural community.

The business of the new firm will be conducted at the old stand in *Light*, near *Pratt-street*, and will be distinguished as heretofore, as

THE MARYLAND AGRICULTURAL REPOSITORY. Among the articles in their line of business, of their own manufacture, which they have now for sale, are the following, viz:

PLOUGHS.

The Self-Sharpening Plough possesses the advantage of having a moveable steel point, from fifteen to twenty-four inches long, which can be reversed, as a bevel is formed by wearing, and advanced as it becomes shorter, so as to bring into actual wear from twelve to eighteen inches of a solid wrought bar; by thus changing the point, the share continues to perform its work well until worn off nearly up to the mould board; whereas, without this moveable point, shares are generally rendered useless when only half worn.

This valuable principle may be applied to any shape of mould board.

SELF-SHARPENING.

No. 00. The smallest size is a 7 inch seed and cultivating plough price \$5 25

No. 0. A one-horse cultivating plough, 8 inches wide, nearly the same length as the smaller one, but has a bolder mould board, and better adapted to sandy lands. The shares and heels of these two sizes suit each other,

No. 1. A light two-horse plough, 6 50
 " 2. A two-horse plough, 9 inches wide, 7 00
 " 3. A two-horse flushing plough 8 00
 " 4. A heavy three-horse plough with sword colter, 12 00

WOOD'S PATENT.

No. 21. A seed and cultivating plough, 8 inches wide, with cast share 5 00

Corn. A one-horse plough, with wrought iron standard and cast share 5 50

No. 1. A. Is a light two horse plough, 9 inches wide 6 50

No. 1½. A two-horse plough, with sword colter and cast share, a superior flushing plough 8 50

The above ploughs of Wood's Patent are entitled to two extra shares each, at the above prices.

SINCLAIR & MOORE'S IMPROVED.

6 inch. A superior seed plough, with cast share 4 50

7 " A one-horse do do 5 25

8 inch. A light two-horse plough, with cast share 5 75

9 " A two-horse do do 7 00

9 " do wrought share 9 50

10 " A heavy two, or light three-horse plough, with sword colter and cast share 9 50

10 " A three-horse plough with wrought share 11 00

10 " A three-horse plough with sword colter, a superior flushing plough, made both right and left handed 12 50

12 " A heavy three-horse plough, with sword colter 15 00

M'CORMICK'S PATENT.

No. 7 inch. One-horse wrought shared plough 5 50

" 8 " Light two-horse ditto ditto 7 00

" 9 " Two-horse plough with sword colter 9 50

" 10 " Three-horse plough, with colter 12 50

" 12 " Heavy three-horse plough, with colter 15 00

BAR SHARE.

No. 1. Is a 7 inch plough, with wrought share and lock colter 6 75

" " Is a 7 inch plough, without colter 5 50

" 1½ A one-horse plough, with wrought share and colter 7 00

" 2 A light two-horse plough, with wrought share and colter 8 50

" 3 A two-horse plough, with wrought share and colter 10 00

" 3½ A heavy two-horse plough, with wrought share and colter 10 50

" 4 A three-horse plough, with wrought share and colter, a superior flushing plough 12 00

" 5 A heavy three-horse flushing plough, with wrought share and colter, 15 00

HILL SIDE.

A plough suited to two horses, with cast share, changes with ease, so as to throw the furrow to the right or left 11 00

Ditto with wrought share 13 00

SHOVEL-PLOUGH.

Wrought shares 4 50

Double-shovel 6 50

CARY-PLOUGH.

No. 1. A one-horse plough, having nearly the form of mould board as the well known Cary or Dagon plough, but has a cast iron mould board and wrought share. The mould board is bold, opens a wide furrow, does clean work, and is very strong and simple in its construction 5 50

No. 2. A light two-horse plough of the same construction 6 50

BUFFALO-PLOUGH.

No. 1. H. A one-horse plough, with cast share 5 50

No. 1½ H. A two-horse plough, with cast share 8 00

" 2. H. Heavy two-horse ditto 9 50

The form of the mould board of these improved ploughs, is somewhat on the principle laid down by Thomas Jefferson, but varied so as to equalize the pressure on the mould board, as observation in the practical use has dictated.

DOUBLE MOULD BOARD.

Two sizes; a very useful plough for cultivating potatoes, &c. and for ploughing up potatoes at the time of gathering the crop. Price \$7 00 to 10 00

EXTRA CASTINGS FOR PLOUGHS.

FOR SELF-SHARPENING PLOUGHS.

No.	00	0	1	2	3	4
Shares	25	25	25	25	31½	37½
Heels	12½	12½	12½	12½	12½	25
Landsides	75	75	75	75	75	100
Md. bds.	1 00	1 00	1 25	1 75	1 75	2 75

FOR SINCLAIR & MOORE'S PATTERN.

No. 6, or 6 in.	7 in.	8 in.	9 in.
Shares 25	25	31 1/4	37 1/2
Heels 12 1/2	12 1/2	12 1/2	18 3/4
Md. bds. 1 00	1 50	2 25	2 75

WOOD'S NEW YORK PLOUGHS.

No. 21	Corn	No. 1 a	No. 1 1/2
Shares 25	25	37 1/2	37 1/2
Landsides 37 1/2	37 1/2	75	75
Md. bds. 1 50	1 37 1/2	1 75	2 25

Also, castings of all kinds made to order, at moderate prices.

CULTIVATORS.

Those with five wrought tines, of the most approved shape 5 75

Five tines of more simple form 5 00

Cast tined If made to expand, 50 cents additional. from 3 50 to 4 50

WHEAT FANS.

Improved 26 00 to 30 00

Common Fans 20 00

Box Fans, small size 16 00

STRAW CUTTERS.

20 inch. Cylindrical straw cutters, suited to horse or water power capable of cutting from 75 to 100 bushels per hour 75 00

Extra knives per set 16 00

14 inch. Box same construction, suited to manual power 45 00

Extra knives per set 5 00

11 inch. Box 30 00

Extra knives per set, 4 00

These machines are self-feeders, the knives are of spiral form, and act on the bed-steel in such a manner as to cut with great ease without a very keen edge: many thousand bushels have been cut with them without sharpening the knives.

Common Dutch Straw Cutter with treadle 7 50

Ditto without treadle 5 00

CORN SHELLERS.

Of the various kinds offered to the public, the one generally preferred is that with a vertical iron wheel with spring holders, which adapt themselves to any sized ears. There is no machine more certain to answer the intended purpose; they are very durable and easily kept in order, and will shell from 15 to 20 bushels per hour by hand, and are now sold at \$20,00 with a discount of five per cent. if cash be paid.

HARVEST TOOLS.

Grain cradles with warranted scythes 4 00

Grain and grass scythes, and scythe stones.

Grass scythes and sheaths ready hung 2 25

Bramble scythes do do

Hay and manure forks, rakes, sickles and composition scythe rifles, &c. &c.

GARDEN AND FIELD TOOLS, &c.

Hedge shears Turnip hoes

Pruning do Elwell's hoes

Ditto knives Mattocks

Ditto saws Picks

Ditto chisels Socket shovels

Bill hooks Trace chains

Transplanting trowels Hoes

Spades Tussocking Hoes

Garden Reels Hay knives

Ditto lines Straw knives

Iron rakes Dock raisers

Scuffle hoes Ox yokes and bows.

Wove Wire for screens, fans, cellar windows, safes, &c.

Thomson's superior Axes, drawing knives, hatchets, and other tools.

Cotton Gins made to order.

FIELD SEEDS.

They have in store the following seeds, viz:—*Timothy, Red Clover, Orchard Grass, Herd's Grass, Tall Meadow Oats, seed Buckwheat, seed Wheat of various sorts, do. Rye, Millet, Oats of the several kinds, &c.*

They will particularly call the attention of farmers to a crop of 200 bushels of orchard grass seed which they will have in store and on sale on the 1st September, which is represented of peculiarly by fine quality, being cured with great care.

Horse Scoops, for removing dirt, a most effective invention.

CORN CRUSHERS. This implement may be worked by either hand or horse power, and is considered an invaluable acquisition to those who have large stocks, as the cob and grain of the corn are rendered almost equally available as feed.

DOUBLE CORN SHELLERS. It is not saying too much of these simple though powerful implements, when it is affirmed, that they are the most useful among the labor saving inventions, one of them being competent to shell more corn in a day by hand-power than 20 men.

CYLINDRICAL STRAW CUTTERS, IMPROVED. The universal approbation conceded to the large sized Cylindrical Straw Cutters, having induced them to prepare the small sized ones upon the same convenient principle, they are happy in being able to announce a supply of these very desirable and justly popular articles.

JAMES MOORE will carry on the *Foundry* individually, and he avails himself of the occasion to say, that from his own experience, the skill of his foreman, and his disposition to please, together with the superiority of his workmen, the public have every guarantee that the work will be faithfully executed.

Castings of all kinds, and of the best quality will be furnished to order at the shortest notice, deliverable at the store or any other part of the city, or on board vessels.

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper.

aug. 23

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 18.

BALTIMORE, MD. AUGUST 30, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, AUGUST 30, 1836.

We continue to day the admirable essay of *Chaptal*, on the Beet Culture, and are delighted to learn that many agriculturists are about to engage in it.

Before it is too late we would again remind our agricultural readers, that, in the present state of the wheat and rye crops, prudence should induce them to put in an extra quantity of *turnips*, as it is more than probable, that owing to the scarcity of breadstuffs, many will have to draw freely upon roots for the feeding of their stock. A few acres of this root can very readily be put in without materially interfering with the other operations of the farm; and if the ground be properly manured its yield will amply compensate for the trouble and expense of culture.

In noticing the nursery establishment of Mr. R. Sinclair, in our last, we neglected to mention a very important department at that excellently conducted concern, and we now take pleasure in correcting our omission. During our flying visit we trusted to our memory, which though good in the general, seems to *repudiate detail*, and consequently put us in fault in a most interesting branch of the business followed at Clairmont. We say *interesting branch*, because it is one in which the public are deeply interested. We allude to the raising of seed. At present, Mr. Sinclair is engaged in cultivating vegetables of the following kinds, with a view of furnishing seed to his son who is very extensively engaged in that business. From the great pains he takes to set the various varieties of the same vegetable at remote distances from each other, and from the careful manner in which the several kinds

are cured, every reliance may be placed in their purity and germinating powers. We subjoin a list of the seeds raised by him in 1836. They are as follows:

Asparagus, long blood beet, turnip do., man-gold wurzell, red-marrow beans, white do. early yellow 6 weeks do. savoy cabbage, flat dutch, long orange carrot, early horn do. white solid celery, long yellow cucumbers, early do. Delaware kale, yellow curled endive leek, brown dutch leek, Celestian lettuce, cabbage or lazy lettuce, parsley, parsnips, squash pepper, cayenne do. turnip radish, black spanish do. white summer do. salsafy, summer spinach, winter crook squash, tomato, white flat and red top turnip, ruta бага,—and besides these, various kinds of flower seeds.

Silk Culture.—A public meeting was held at Leesburg, Va., on the 8th of August, for the purpose of considering the best means of introducing the culture of silk. Several interesting statements were made, of the facility of the culture and the large profits resulting therefrom; and resolutions were unanimously adopted, expressive of the propriety and expedience of encouraging its introduction within the county of Loudoun. As a means of accomplishing this desirable object, the establishment of a Mulberry orchard upon the Poor House Farm was strongly recommended.

This is as it should be; and we are happy to find the patriotic people of Loudoun directing their attention to an arm of industry so eminently calculated to confer blessings upon them.—Nor are we less gratified to find that they think so favorably of the suggestion which we made in the month of May of the last year, of adopting the mulberry culture upon their Poor House Farm. This is what the managers of alms-house establishments should do throughout the country, and for ourself, we cannot conceive how, with the lights now before the country, any body of managers who are faithful to the interests of the county which may be confided to their trust, can hesitate a moment in so doing. The support of the poor every where bears with onerous weight upon the taxable inhabitants, and it should be the pride, as it is the duty, of those superintend-

ing Alms-houses, to avail themselves of a means so entirely practicable, of not only lessening those burthens, but of netting a handsome sum over and above the support of the paupers under their charge respectively.

A very simple process has lately been practiced by a farmer near Edinburg of exterminating rats. His barn had been infested with them to an alarming extent, and he fell upon the following plan to get rid of them. He placed a large copper kettle in his corn loft, then filling it about half full of water, strewed chaff over it so as to cover the surface of the water, and placing boards from the wall to the kettle, the rats mistaking the chaff for grain made the fearful leap, and in this way 400 of them were drowned.

Those who wish to have a supply of *Delaware Kale*, *Spinach*, and the *early sorts of Cabbage* and *Lettuce*, for spring and early summer use, should lose no time in sowing the seeds of these respective vegetables; nor should they omit to sow the various kinds of radish seed best adapted to fall and winter use.

WHEAT—The ground destined for this staple article should be speedily got ready, and it is to be hoped that the disastrous results of the last season will not deter any farmer from sowing his usual quantity of seed; for though much distress may, and no doubt will, ensue to those who have heretofore relied upon this crop for the means of enabling them to meet their engagements, it should not reasonably be expected that similar maladies visit vegetable productions two years in immediate succession. But that nothing may be wanting to ensure success, every farmer who may sow wheat should leave nothing to chance, either in the preparation of his soil, or seed. While the first should receive a due quantum of *wholesome* manure and lime, be well ploughed and pulverized, the latter should be carefully steeped in ley, lime-water, or brine, drained and rolled in plaster or lime. The question is still a debatable one, whether the *fly*, which proves so destructive, does not deposit its egg upon the kernel of the wheat plant. If this be the case, much good may be effected by the treatment recommended, in the destruction of the insect ere it is warmed

into life; but whether such be the case or not, we hold it that good will thereby arise to the crop, first in the degree of nutrition which will be imbibed by the seed, and secondly, in the cleansing which they will receive in the process from smut. And it may not be amiss to state, that a top dressing of plaster after the plants have come up would tend greatly to forward their growth, and place them beyond harm's-way from any insect which might attack them in the early stage of their existence.

STRAWBERRIES—This delightful fruit should be more cultivated than it is; for besides being one of the greatest luxuries of the table, it is decidedly one of the best anti-scorbutics that can be used, and is also one of the most effective dentrifices, in the removal of tartar from the teeth, to be found. Those who may contemplate setting out new transplantations, or desire their old beds to flourish, should seize the present moment to plant out the one, and thin and dress the other.

SEEDLING DAHLIAS.—We had a *boquet* of ten seedling Dahlias placed on our table on Saturday last, which were raised by Robert Sinclair, senior, at his nursery, from seed, the present season, and we are compelled in candor to say, that we have never seen a collection of this most deservedly popular flower more rich in colors, or more deserving of admiration, whether regard be had to the delicacy of their respective tints, or to the doubleness of the flowers.

THE CROPS OF PART OF MARYLAND.

We had a conversation some days since with a very intelligent and highly respectable gentleman, who had just arrived here from the springs, having passed on his way homewards through Washington and Frederick counties, from whom we gathered the facts which will be found in the following statement. Being a farmer of experience and reputation, the result of his observation may be relied upon. He represents the corn in those counties as looking well and promising a good crop, but thinks that its yield may be very much curtailed, should an early frost overtake it, as much of it is of late planting.

The *Wheat* crop in Charles county, where he resides, he says has been a most disastrous failure, and thinks the general average will not be more than twice the quantity of seed sown, and as proof of the justness of his opinion, instanced the crops of himself and a neighbor. He himself sowed 100 bushels and did not reap more than 300; while his neighbor, an excellent farmer,

who sowed 150 bushels did not get more than 300 bushels. The straw, he mentioned as being as good as he had ever seen, though the heads were defective and the grain inferior.

The tobacco crops in Charles, St. Mary's, Calvert, Prince George's, and Anne Arundel counties promise as well as he has ever seen them at this season of the year, though the quantity raised will not be so great, by several thousand hog-heads, as from 7 to 8,000 slaves have been sold or removed to the cotton states of the Mississippi, within the last fifteen months.

The corn crops in the same counties he thinks will be tolerably good, though they have alternately suffered by drought, rain, and the *grub*, that groundling enemy of Agricultural industry.

THE CROPS—We learn from an observant gentleman recently from the West, that the farmers of this and the adjoining state of Pennsylvania, westward, have been careful and prompt to use all practicable means for supplying the deficiency occasioned by the almost total failure of the last wheat crop. The corn, which is a large crop, though the quantity put out was not, of course, greatly affected by the failure of the winter grain, looks generally very luxuriant, and all that is now necessary to ensure a heavy product is, a little warm weather, and the absence of early frosts. Our informant states it as the prevailing opinion that if the corn, which is somewhat less advanced than usual at this season, in consequence of the cold weather, should not be nipped or injured by early frost, the crop would be one of the largest and most productive that have been gathered for many years past. The oats crop, already secured and coming to market, is also stated by our informant to have been unusually large and productive, perhaps more so than in any previous season for years past; and the same may be said according to present appearances, of potatoes and other roots, which come in very effectively in aid of the present year's short supply of wheat.

But the buckwheat crop, in these regions, is especially extensive and luxuriant, and promises to be above all productive. Our informant states that never before did he see such rich and numerous fields of growing buckwheat, or such an admirable prospect of a heavy crop of that excellent grain. It is here that the farmer has placed his principal defence against the short supply of wheat, as the failure of his wheat harvest was known before sowing time for buckwheat. And well has he guarded against the worst effects of a short supply of wheat, by providing an ample and abundant supply of this grateful substitute. Throughout the whole route of our informant, and indeed in all parts of the country from which we have information, the crops of buckwheat this year are far more extensive, and promise to be far more productive than those of any previous year.

On the whole, though the agricultural interest has experienced a heavy loss, in the failure of the wheat harvest, that loss will be compensated, as far as may be, by the luxuriant growth

and abundant yield of corn, oats, buckwheat, and other summer products. The evil of a short crop of wheat and rye, is one that nearly effects any community; but in the regions thus affected, on the present occasion, it is a source at once of gratification and GRATITUDE, that all other products of the fruitful earth, which enter into the consumption of man or animal, promise this year to be unusually rich and abundant.—*Balt. Pat.*

Mode of Weaning and Rearing Calves, by a Norfolk Farmer, Eng.—Mr. Whitley of Wallington, did, between the first of December, 1776, and April, 1777, wean and rear on his farm ten cow calves and thirteen bull calves, by the method following: At three days old they were taken from the cows, put into a shed and fed with flet (skimmed milk) allowing three quarts to each calf morning and evening. When a month old, they are fed with a like quantity of milk and water, morning and evening, with hay to feed on in the day time; and at noon they were fed with oats and bran equally mixed, allowing half a peck to one dozen calves. At two months old they were fed only in the morning with milk and water; they had hay to feed on in the day time, and at evening instead of noon, had the same quantity of bran and oats with water to drink.—They were fed in this manner until the middle of April, when they were turned out to grass all day, and taken into a shed in the evening, and fed with hay until there were plenty of grass and the weather grew warm. Such of the calves as were weaned in March were continued to be fed with milk and water every morning until midsummer. All the said calves are in good health and condition; and the Society allowed the premium offered on that head the preceding year.—*Bath Soc. Papers.*

Rearing Calves, 1789.—In the year 1787, I weaned seventeen calves—in 1788, twenty—and in 1789, fifteen do. I bought in 1787, three sacks of linseed. I put one quart of seed to six quarts of water, which by boiling ten minutes, became a good jelly; this jelly is mixed with a small quantity of the best hay steeped in boiling water.—Having my calves dropt at different times, I did not make an exact calculation of the expense of this hay tea; but of my sacks of seed I had better than two bushels left at last. I gave them the jelly and the hay tea three times a day; the price of the linseed was 4s. 6d. stig. per bushel; the whole three years seed 2l. 5s. My calves are kept in good growing state, and are much better at this time than my neighbors, who are reared with milk; they do not fall-off so much when they come to grass.

The Silk Business.—The committee appointed by Congress, we learn from the Northampton Gazette, are expected to visit the works of the silk company in that town the ensuing autumn, to obtain information concerning the various branches of the silk business. This committee intended to make a report at the last session of Congress, but they deferred it to await the return of Mr. Whitmarsh from Europe, to gain the results of his observation and experience.—*R. I. Journal.*

[From Chaptal's Agricultural Chemistry.]

ON THE CULTIVATION OF THE BEET ROOT, AND
THE EXTRACTION OF SUGAR FROM IT.

(Continued.)

ON BOILING THE MOLASSES AND LEACHING
SIRUPS.

I mix the molasses obtained from the brown sugar with the sirups which have been filtrated through the loaves, and proceed to boil the mixture. The molasses marks 22 or 24°, (=1.171 to 1.180,) and the mixture 22 or 23°, (1.180 to 1.190.) I throw from 32 to 35 gallons of this mixture into the boiler, and when the heat approaches to ebullition, I add about one pound of animal charcoal which I mix carefully with the liquor.

The boiling of this liquor is more difficult than that of the sirup which produces the brown sugar but with care and patience it may be done to very good advantage. This liquor yields at least one-sixth of the quantity of sugar that has been produced by the first operation; this product is sufficiently important to render it advisable to boil down the molasses, instead of disposing of it, as is almost every where done, for distillation.

If the molasses procured from beets was of the same quality as that obtained from the sugar cane, it could be sold with advantage, but it has a bitter taste which renders it unsaleable; it is then best to exhaust it of crystallizable matter, and to subject the remainder to distillation.—The difference in the quantity of alcohol obtained from the two kinds of molasses is almost nothing.

Instead of depositing the product of this last boiling in moulds, I throw it, from day to day, into a hogshead open at one end, and thus gradually fill the cask; the sugar crystallizes wonderfully in these vessels, so that they become half full of it.

When this sugar, which I call molasses sugar, to distinguish it from brown sugar of the first boiling is to be refined, the molasses which lies on the top is dipped out, and the rest is made to flow out through small gimblet holes bored in the bottom and around the circumference of the cask.

The sugar when deprived of all the molasses which can be made to flow from it, still forms only an adhesive paste which can scarcely be refined; I therefore put this paste into bags of coarse, strong cloth, and subject it to a compression. The sugar thus freed from molasses is very dark colored, but the quality of it is excellent, and it is as easily refined as the best brown sugar.

When the brown sugar boilings turn badly, and crystallization in the mould is imperfect, and in a word, at all times when sugar is ropy and parts but imperfectly with its molasses, it is necessary to subject it to the action of the press before attempting to refine it; as soon as it has in this way been freed from all its molasses, it may be refined without any difficulty.

In most of the beet-sugar manufactories they have adopted the swinging boilers for preparing their sirups; concentration is performed speedily in these, and they have the advantage of being emptied in a moment; but they are useful only

when the operation is performed upon dry sugars, like the American, which contains but little molasses. Our beet-sugar is never so well drained as the imported sugars are, and requires much more care in the boiling. These boilers appear to me more apt to cause the burning of the sugar than the old kind, and I therefore give the preference to the latter.

ON THE REFINING OF SUGAR OBTAINED FROM
BEET ROOTS.

When the sugar is dry, the refining of it is easily performed; all possible pains then should be taken in the preceding operations to free it from all its molasses.

All the operations of refining may be brought under two heads, clarification in the boiler, and whitening in the moulds.

To refine sugar well, it is better not to operate upon too large quantities. I have always observed, that when I subjected to the same boiling process 2 or 3,000 lbs. of sugar, the last boilings were ropy, and each operation less perfect than when performed upon 400 kilogrammes (about 890 lbs.) at one time; it is upon this last quantity that I shall found my calculations.

I have never been able to assign a reason for this difference, but it actually exists; perhaps it arises from my not being able to complete my boilings in one day, and the clarified sirups have become changed in the boiler; or perhaps a large quantity of sirup may be more difficult to manage than a small one, though the ingredients be combined in the same proportions.

ON CLARIFICATION.

A boiler four or five feet in diameter and twenty-eight inches in depth, is two-thirds filled with water, to which lime water enough to fill the boiler is added; in this mixture is dissolved at a low heat, 400 kilogrammes of brown sugar.

The solution must not mark more than 32° (=1.286) of concentration; if it stands higher, it must be weakened, if lower, more sugar must be added. This state of concentration belongs only to solutions of dry sugar; those of damp sugar must be reduced to 30 or 25° (=1.261 to 1.210) otherwise it will be almost impossible to filtrate them.

The solution is then heated to ebullition.—When the temperature reaches 65° (=178½° Fahr.) fifteen kilogrammes (32½ lbs.) of animal charcoal are added to it; the mixture is then carefully stirred and mixed with a wooden spatula; after allowing it to boil an hour, the fire is extinguished.

The quantity of animal charcoal added ought to vary according to the quality of the sugar, that which is dry requiring a less portion than that which is wet.

The boiling liquor is freed from the charcoal by filtration through a coarse cloth, and when the heat has fallen to 40° (122° Fahr.) the whites of forty eggs beaten and diluted with several quarts of water, are thrown into the boiler. The liquor is then carefully stirred, and is kept constantly in motion till the temperature rises to 70° (=180° Fahr.) when stirring is omitted and the heat raised to the boiling point.

As soon as the first bubble appears upon the surface, the fire is extinguished; a thick coat of

scum forms upon the surface of the liquor, and is removed at the end of three quarters of an hour.

The liquor is filtered through a coarse, thick, rough cloth; if the first portion that passes through be not perfectly clear, it is to be thrown again upon the filter, and this operation is repeated till the liquor appears completely limpid and free from any floating particles. As soon as the liquor is perfectly clear, it is boiled; five or six boilings being formed with the product of the clarification.

The several boilings are thrown into the cooler as fast as they are completed, and from thence into the moulds *four*, which can contain 5½ gallons each. These operations are conducted in the same manner as those which I have described in speaking of brown sugar, but with this difference, that the sugar contained in the moulds is stirred and moved at two different times before it is taken in the mass.

After three days the moulds are placed upon the pots into which the molasses drains, and at the end of eight more, they are removed to the second pots, where the whitening is to be performed.

ON WHITENING SUGAR.

The clarified sugar is dry, of a yellow color, varying considerably in the depth of its hue; the taste is mild and sweet. The process of bleaching removes from it the small quantity of sirup with which it is impregnated; it can be effected in three ways, namely, by the use of clay, of alcohol, and of the sirups; the first of these is the one generally employed in the refineries.

When the sugar is to be clayed, a hogshead unheaded at one end and furnished with a row of stop-cocks placed one above the other from top to bottom, is partly filled with white clay, upon which water is poured till the cask is full; the clay is then carefully stirred, so that every portion may be well washed. This operation is repeated several times, the water of the washings being drawn off as soon as the clay settles, and a fresh quantity turned in, which is stirred in the same manner. The washing is continued till the water no longer appears charged with any foreign substances, when the water is allowed to remain undisturbed upon the clay till this becomes thoroughly divided, so that upon handling it no lumps can be found. When the clay is found to be in this state all the water is drawn off, and the clay suffered to dry gradually, till it acquires such a degree of consistency as not to flow when placed upon a smooth and slightly inclined board; it is now considered ready for use.

Before placing the prepared clay upon the sugar contained in the moulds, the surface of the loaves are carefully scraped, so as to remove one layer of the sugar, which is replaced by a portion of very white powdered sugar; this is piled up and smoothed very nicely, and then covered over with a layer of clay thrown on with a spoon. The water contained in the clay passes gradually into the layer of white sugar, which it dissolves, forming a sirup which penetrates into the loaves, deprives the sugar of its color, and passes out at the point of the mould.

The clay, being thus gradually deprived of water, shrinks and dries, and is then removed and

thrown into the cask to be made use of in new operations.

The upper part of the loaves is rendered white by this first operation; but when the liquid which flows from the opening in the point of the mould is colored, a second claying is performed; in this, however the clay alone is used, the intermediate layer of the sugar being dispensed with.

The number of clayings to be employed, depends upon the quantity of coloring matter contained in the sugar; two are usually enough to render sugar merchantable; but in order that the sirup may flow off free from any tinge of yellow, three must be employed.

When the operation of claying is completed, the loaves are placed upon their basis, that the white sirup by which the points are softened may diffuse itself through the mass.

At the end of eight or ten days the loaves are taken out of the moulds and placed in a stove-room in which they are dried.

The method of whitening by clay is certain, but it possesses the great fault of converting into sirup nearly one-fifth of the sugar operated upon; and if the sugar is adhesive, or the grains of it very fine, the quantity of sirup formed is still more considerable. Whenever I have worked upon sugars of this description, I have melted them over, and freed them from their adhesiveness by boiling them down with a quantity of animal charcoal.

Brown sugar made from beets, when refined, generally yields in molasses or non-converted sirup, between one-fifth and one-sixth of its own weight, and it loses by claying at least one-fourth.

The sirups which are produced during these various operations, are usually boiled without the addition of any foreign substance, and the product of these boilings is thrown from the cooler into the *demi-batarde*, where they become crystallized; the form of the largest loaves of sugar weighing between 22 and 27 lbs., known in commerce under the name of *lombs*.

It has been attempted to substitute the method of whitening by alcohol for that by claying; this process is founded upon the power which alcohol possesses of dissolving the coloring principle without acting upon the sugar. I followed this mode two months, making use of no other alcohol than what I procured from the distillation of my molasses. I confined myself in this process to leaching the loaves of sugar contained in my moulds with alcohol of 35° (= sp. gr. 0.852) of concentration; covering the moulds over so as to prevent loss by evaporation, and renewing the alcohol till the liquor passed off perfectly clear from the point of the mould; this alcohol I redistilled to employ in new operations.

I abandoned this method of bleaching sugar for the following reasons:

1. Notwithstanding all the precautions I took, I lost half a killogramme (a little more than a pound) of alcohol for each loaf of ten pounds weight.

2. The loaves of sugar, though well dried in the stove, always preserved a slight odor, which became more sensible after their having been confined in the papers and transported.

3. The price of alcohol of this degree of con-

centration, rendered the refining by alcohol as expensive as that of clay.

Some very skilful chemists propose to supply the use of clay by that of sirup; theory is in favor of this method, but experiment contradicts it.

In the first place, in order that the sirup may be employed with success, it is necessary that it should be white, and of course that it should be made by saturating water with very white sugar. The water which is disengaged from the clay, produces a sirup in passing through the layer of sugar with which the loaves are covered; there is, therefore, no advantage to be derived from the use of sirup on account of its containing sugar, and the process is less economical than claying, inasmuch as both time and fuel are required for making the sirup, whilst in claying it is produced by the process itself.

However, as the theory is seducing, I tried this method, and the following statement exhibits the results.

I prepared a quantity of sirup at 30° (= 1.261) of concentration, which I poured upon the smoothed surface of the loaves till they were covered with it; the following day the sirup had penetrated into the mass, which was sensibly whitened by it. I repeated the operation at intervals of four hours till the sirup passed off through the point of the mould clear; this did not take place till the end of twenty days, at which time the bleaching of the greater part of the loaves was completed. I continued the operation upon the others from twelve to twenty days, removing successively those that were finished.

When I came to take these loaves from the moulds, they came out in fragments; the sugar was moist and without consistency; it was impossible to dry it, and I was obliged to melt it over and make double refined sugar of it. I repeated the operation of bleaching with sirup several times, and always obtained the same results.

It is evident that the sirup applied in this manner interposes itself between the molecules of the sugar, and there remains; whilst in the process of claying, the sirup being formed gradually, passes it by insensible filtration, imbibing the coloring matter, which at length it carries off. I moreover found that it required twice as much sugar to form the sirup as was needed in the usual method of claying.

The numerous experiments which I have been in the way of making during a dozen years, have induced me to adopt a process which appears to me more advantageous than either of those of which I have just spoken. I cut out of the coarse cloth called *calmuck*, round pieces of the same size as the basis of the loaves; these I soak in water, and afterwards wring; I then apply them carefully to the bases of the loaves which have been previously scraped and smoothed with the blade of a knife or a small trowel. In twenty-four hours time the surfaces of the loaves are bleached. I then pour upon the cloth about half a pound of the converted sirup of the last claying; the sirup gradually penetrates the cloth, and filtrates through the loaves, from which it removes all the coloring matter.

As soon as the sirup had passed through the cloth into the sugar, I moistened the cloth by sprinkling it with drops of water, and the next

day I throw upon it the same quantity of converted sirup.

The first operation is completed in five or six days, after which the sirup is left to flow during four or five days. By these leachings the loaves are perfectly bleached to the depth of four or five inches, but they are still a little colored below; I complete the bleaching by a slight claying, applying the earth immediately to the surface of the loaves without any intermediate layer of sugar.

I find that bleaching is performed more speedily and with less labor in this way; the evils arising from the use of sirup alone are obviated, and but a small portion of the sugar already bleached is dissolved.

In order to appreciate all the advantages arising from well conducted operations, it is necessary that one should know the change produced in sugar by repeated meltings; it is brought first to a point when it will no longer crystalize, and afterwards to the state of molasses. Sugar which has been three or four times boiled over, will still crystalize upon the sides of the moulds, but the middle of the loaf will be only a uniform, thick, white mass, destitute of the agreeable taste of sugar: this substance, if melted, does not again become solid, but remains in the state of molasses.

I ought to mention that in the various operations that are performed upon sugar, the nature of the substance is often made to undergo a series of changes, or a succession of degeneration equally constant and regular.

I have just mentioned, that when sugar is made to repass two or three times through the boiler, it is rendered uncrystallizable, and the middle of the loaf is found to consist of a uniform mass of the consistency of butter, not possessing the agreeable flavor of crystalized sugar. This mass dissolved in water and concentrated by heat, is reduced to molasses; and when the evaporation and clarification of the juice of beets is prolonged beyond a certain time, nearly all the sugar is reduced to molasses, and the boiling is rendered long and difficult; when this is the case the sirup throws up an abundance of adhesive white foam, which, when removed with a skimmer, thickens and presents all the characteristics of vegetable wax. The experience of twelve years has uniformly furnished me with these results.

I am thoroughly convinced that these alterations would be avoided by evaporating the sirup in a vacuum; it has even occurred to me that the animal charcoal produced good effects only by its opposing the action of the oxygen of the atmosphere upon the sugar, since nearly the same results are obtained by the use of butter, and other oily substances susceptible of extreme division. The secret of causing this decomposition to retrace its steps, still remains to be discovered; I have essayed it without success.

(To be continued.)

Broom Corn.—The Northampton Gazette states that the fields of broom corn in that vicinity promise a small crop—the largest hills are not more than two feet high, and the greater part do not exceed ten inches. Some fields appear thrifty and very promising. Broom corn must command a high price this year.

[From the Northampton Courier.]

To the Editor of the Northampton Courier:

In reference to an article in your valuable paper of August 3d, in which you inserted a statement of the profit of the culture of the Chinese Mulberry, from a small beginning, under the head of 'Who would not be a Silk-Grower.'

To prove that the writer is by no means extravagant in his calculations, I will state the *actual experiment* I have made this season, in Manchester, Conn.

On the 12th of May I set out several thousand of the *Morus Multicaulis*, of which, I took for experiment 300 trees and set them on ten rods of ground, or 1-16th, of an acre. Instead of setting the trees perpendicular, they were placed horizontally in the ground, forming a continued row of trees, in the following manner: Having ploughed a furrow 5 or 6 inches deep, I laid the roots and single stalk in the furrow, so that the end of the stalk should be covered about 2 or 3 inches deep. The rows were three feet apart. From these 300 trees and roots so planted, I now have 3,700 fine trees or shoots, which on the first day of August would average $2\frac{1}{2}$ feet in height, with large substantial roots of the size of common goose quills.

On the 25th of June I commenced feeding 6,000 worms of the six weeks kind, on the foliage of these 3,700 shoots, and on the first day of August, these 6,000 worms were transformed into 3 bushels of the finest cocoons I ever saw, (each of which bushels I presume would reel at least 1 1-4 lb. of silk) worth at least \$15. By the 15th of September, from the same trees, I shall have sufficient foliage to feed 10,000 more worms which would yield three or four bushels more.—For the above 300 trees I paid $3\frac{1}{2}$ cts. each last spring, and estimate their product, 3,700, will be worth at least 25 cts. each, or \$925, and the three bushels of cocoons worth \$15 making, \$940 00

Deducting the cost of the 300 trees
last spring, 112 50

Ditto labor and expense of feed-
ing the worms and land, 12 00

————— 124 50

Leaving a profit on the 300 trees, for
the first year of, \$815 50

Now if this should be carried on through the second and third year, as was done in the supposed case referred to, I think the result would exceed that of the *Silk Cabinet*.

From the experience of the last and the present year, I consider that good cuttings on good land, will produce at least half a pound of foliage each.

The writer in your last has made allowance for cultivation, feeding of worms, gathering foliage and other items of deduction, which I do not think is necessary, and instead of the result given for the second and third year being excessive, I must say, that in my opinion, from the experience I have had, and experiment made, the profits might have been greater than there made. I presume the object of the writer was merely to convince the public, that the culture of the mulberry and silk, might be made a lucrative employment, sufficiently so, to encourage the culture of silk to almost any extent.

I consider it less labor to gather five pounds of

foliage from the Chinese or *Morus Multicaulis*, than to gather one pound from the White Mulberry. I have been engaged three years in the culture of the mulberry and manufacture of silk, constantly making experiments, and am fully satisfied that the business may be a profitable one to be pursued in families, as well as by corporations. It is my intention to erect a large cocoonery next fall or spring, upon a new and improved plan of my own invention, about which you may know more hereafter.

At my establishment, about 100,000 trees of the Chinese or *Multicaulis* are under successful cultivation, and am so well satisfied with the results of experiments already made, that a similar course will be pursued next year, as the most sure method for propagating the trees and increasing the quantity of foliage. I am daily removing the leaves and topping the sprouts to check the growth of the tree and hasten the product of wood. Some of the sprouts have been cropped of their leaves three or four times without any injury, and every succeeding crop of leaves is improved; although the size may be less, the number and weight have been increased.

From my own experience, I am fully convinced, with Mr. Whitmarsh and Dr. Siebbins of Northampton, that the Chinese Mulberry ought to be headed down every year, in order to multiply the tree and foliage, and that in this way the tree may be preserved during winter, *slightly* covering the stumps in the field, and the tops to be used as cuttings the next year. In a large field, the stumps may have a light furrow turned over them with a horse plough. The roots left in the ground will be considered as permanent roots.—Although it may be necessary or prudent, for the plants from *seed, cuttings, or layer trees*, formed by bending down the side branches, to be removed to the cellar during winter, yet I do not consider that trees cultivated by burying the root and stalk early in the spring, will need removal, on account of the early formation of roots, and presume they will make good standards.

WARD CHENEY.

Manchester Co., August 8, 1836.

Wheat.—The quantity coming to market is light, and generally of inferior quality. A boat load, from over the mountains, that arrived last week, was refused by some the millers of this place—fully one-third was said to be rotten, defective or sprouted grains. One parcel of new Flour, that has been tried here, made every one of the families that ate of it excessively sick.—The farmers should take much pains in cleaning their wheat this season; and we will here copy, from the communication of the Messrs. Langhorne's, the mode of blowing out the imperfect and defective grains:

"After the wheat is cleaned in the usual way, take the wheat sieve out of the shoe of the fan, and fill up the space occupied by the sieve by a piece of plank; then raise the front of the fan about 4 inches, which will bring the wheat, as it falls off the plank, thus inserted, so near the apron as to blow out all the light grains. Should too much be blown out, raise the apron, and if the wheat is not sufficiently clean, lower the apron."

In this and other markets, there has been no

material change in price, though crops that are strictly fine, and that would answer for family flour, would no doubt command a higher rate than our quotations.—*Lynchburg Virginian*.

The Hessian Fly.—The losses occasioned by this destructive insect, during the past year, have stimulated inquiry as to its history, and the possibility of preventing or mitigating its ravages.—We published a few days ago, a plan which had been tried with success, and we trust the experiment will be repeated, so that its merits may be fairly ascertained. A gentleman who has been spending some time with a friend in Washington county, has just acquainted us with another, which we make public for the benefit of our agricultural friends. A farmer in that county, was blessed, several years ago, with a most abundant harvest, but found it almost impossible to obtain hands to secure it. Under the apprehension of losing it, he commenced (against the advice of his friends) reaping several days before the wheat was ripe. The grain thus cut before the proper time, was laid by and used for seed the next year. The fly desolated the fields of his neighbors, while his seemed to defy their attacks. He reaped an overflowing harvest, while they scarcely made enough for seed and bread. Struck with the result of the experiment, he repeated it with the most decided success, and this year, while all the crops of his neighbors have failed, his are abundant as usual. He attributes his success entirely to the use of grain cut before it was ripe, and accounts for this result upon the hypothesis, that the fly deposits its eggs only upon the wheat *when perfectly ripe*, and, of course, that grain cut in an immature state escapes it. The theory seems plausible enough, and is, at least worthy of attention and experiment.

Germanctown Telegraph.

Gama Grass.—This grass, represented as so productive and valuable for soiling and hay, is found growing, in considerable quantities, on the farm of Capt. Ammon Hancock, about a mile from this place. It is scattered about on a poor north side hill, in various bunches, some apparently very young, others now ripening the seed. Some few bunches are growing very luxuriantly in a spring branch, at the foot of the hill. It is probable, from this circumstance, that it is a native of our soil hereabouts, and that it could be found on most of our farms, if its distinctive character was known. A seed stalk of it may be seen at this office.—*Lynchburg Virginian*.

SWEET CORN.

Mr. Editor—As this is the season for preparing this delicious vegetable, I have thought that it would be acceptable to your readers, and especially those who are House-keepers, to understand the process of preparing it. It has long been used by the Indians of the West, as an article of food, and I can testify, from my own experience, as to its excellence.

Sweet Corn is nothing more than our common corn, taken at this season, boiled as for table use, cut from the cob and dried on clean cloths in the sun. It must be thoroughly dried and then placed in a dry room. When wanted

for use, all that is necessary is, to throw a few handfuls into a pot of boiling water, and in ten or fifteen minutes you have a fine dish of corn in the dead of winter, as delicious as if it had just been plucked from the field at this season. It is also an excellent ingredient for soups. The Indians sometimes put dried beans with it, it is then called Suck-a-tash. I hope that the good people of Fredericksburg will prepare an abundance of it during this month, and have plenty of sweet corn during the coming winter. B. S. T. *Fredericksburg Arena.*

Raising Ducks and Turkeys.—In the Agriculturist of last year appeared two articles, one on the best mode of raising ducks, and the other on turkeys. Two seasons have since passed away, and the writer of this has been enabled to test the efficacy of those directions; and in every instance that has come under his knowledge, they have been attended with perfect success.—The directions for raising ducks were to feed them on animal food and keep them dry. Individuals who have adopted this plan, have sent to our markets from 500 to 700 ducks of the finest kinds, and they have had no diseases among them, and found no difficulty in raising them.

Two or three individuals who tried the experiments of driving their turkeys, when young, to a distance from the house, where the greatest number of insects are found, and feeding and housing them in the manner directed in the Agriculturist, have stated, that they have raised from one hundred to three hundred turkeys, and have pronounced it to be a method, which of all others they believe best calculated to be attended with success.—*Southern Agriculturist.*

Brooms.—We have been informed, says the Pawtucket Chronicle, that our enterprising friends the Messrs Summers, last winter, shipped several thousand brooms from New Orleans to Boston and realized a handsome profit by the transaction.

This is reversing the current of trade, and proves that Southerners can compete with Yankees even at their own doors.

Southern broom corn is very superior to the Northern article, being finer and more abundant; as it is free from seeds it offers no attractions to the rats which often make sad havoc with the northern article.—Would it not be an object for some of our northern broom manufacturers to import the southern broom corn, as it can be purchased at a cheaper rate than they can obtain the production of our New England farmers. *R. I. Jour.*

Antidote against Mice.—Mr. Mackdonald, of Scalps, in the Hebrides, having some time ago suffered considerably by mice, put at the bottom near the centre, and the top of each of his stacks of grain, as they were raised, three or four stalks of wild mint, with the leaves on, gathered near a brook in a neighboring field, and never after had any of his grain consumed. He then tried the same experiment with his cheese, and articles kept in store, and often injured by mice, and with equal effect, by laying a few leaves, green or dry, on the articles to be preserved.

Substitute for ringing Swine.—Mr. Tubb, an English breeder of stock, has recommended a mode of dealing with these mischievous animals, which it is said may supersede the necessity of putting rings into their nose. It consists simply of shaving off, with a razor or sharp knife, the gristle on the top of the noses of young pigs. The place soon heals over, and the pigs are thus rendered incapable of rooting.—*N. E. Farmer.*

Keep Accounts.—The farmer ought not only to keep accounts with himself, so as to be able to review at the end of every year, his receipts and expenditures—to tell whence his cash comes and whither it goes; but with his several fields, his crops, his sheep, cattle, horses, swine, poultry. He should at least do this with great particularity till he shall be master of the subject, and can trust his judgment with some confidence. For want of accurate accounts, farmers are often deceived, raise unprofitable crops or animals, or pursue unprofitable methods of cultivation or feeding. Sometimes, too, they abandon a pursuit really advantageous to them, under the false notion that they can do better some other way.

We have published several specimens of such accounts. A little practice will make the business easy; and it will give you not only the satisfaction of knowing the pecuniary results of this and that crop or method, but will awaken new interest in the whole process by which land is prepared and a crop matured. It will enable you to determine the value of the hints you get from reading, and whether it really is more profitable to cultivate five acres thoroughly and skillfully than ten at hap-hazard. And now, while preparing your fields and sowing your seed, is a good time to begin.—*Vt. Farmer.*

Kindness of a Cow.—The following account of a singular circumstance, which occurred in France not long since, appeared in the Paris Moniteur:

"The inhabitants of the neighborhood of Auxonne were long annoyed by a wolf, which at one time devoured a young girl. A boy named Fourcault, about 14 years of age, was minding some cows in that canton. It is well known that these animals, when urged by a common danger at the approach of a wolf, are led by an instinct to collect and range themselves into a kind of circular phalanx, presenting to the enemy those arms which nature has furnished their heads, and thus securing their bodies which would be otherwise exposed. The cows which Fourcault watched, adopted this natural tactic the moment they perceived the wolf, which, however, directed itself not towards them, but the boy, whom it seized, and was beginning to shake him to pieces. One of the cows immediately separating itself from the phalanx, attacked the wolf, and made it drop its prey. The boy availed himself of the contest between his adversary and protectress to seek safety by flight. The wolf quitted the cow, pursued the boy, seized and shook him as before. The cow rushed forward again for the defence of the youth, and harassed the wolf so much as to oblige it to relinquish the victim once more, but being soon repulsed, the boy was a third time in the jaws of the wolf, when fortunately two of

the inhabitants of Villiers-le-point came up, and despatched the animal. Young Fourcault was carried to the hospital, and though wounded in more than 30 places, is since perfectly recovered."

Does the Moon affect the weather.—The question is answered in the negative in a lecture before the Philadelphia Franklin Institute by Dr. G. Emerson. "Dr. E. undertakes to prove by scientific demonstrations that the Moon exercises no influence on the production of wet or dry weather. He assumes it as incontrovertibly proved by experiments of Mr. Dalton, that the watery vapor from which rain is formed owes its elevation and suspension in the atmosphere in an invisible form entirely to heat deprived of a due proportion, which by any refrigerating course it is condensed, and falls to the earth in the form of rain, snow or hail. The conditions of wet and dry weather are consequently, to be regarded as regulated solely by temperature, and on the other hand it has been clearly shown by experiment that the presence and light of the moon cannot produce the slightest effect upon temperature. Dr. Emerson cites and explains the phenomena adduced, and by men of scientific eminence,—in support of the belief, and comes to the conclusion, that the moon exercises no influence upon the wetness or dryness of the weather, or upon animal and vegetable substances.

A GARDENER WANTED.

A single man of undoubted character for sobriety, industry and honesty, and who has a thorough knowledge of gardening—who is competent to manage a large garden, pleasure ground, and hot house, and to discreetly superintend several hands that would be placed under him—will hear of a permanent situation in the South, where the climate is both healthful and delightful.

Apply to the Editor of the Farmer and Gardener, Baltimore.

All applications by letter must be post-paid.
aug 30

GARDEN SEEDS FOR FALL SOWING.

THE Subscriber has just received from the Clairmont Seed Garden and Europe, a large assortment of seeds consisting principally of such kinds as are desirable for fall sowing, viz:

TART RHUBARB or PIE PLANT seed.

SIBERIAN KALE or GERMAN SPROUTS for fall planting and early spring use. CABBAGE SEEDS, several fine early and late sorts. Early Cauliflower; Corn-Sallad; Endive, Luttuce, five sorts: Black and White Spanish Radish; Spinach, Potato Onions, &c.

R. SINCLAIR, Jr.

Aug. 30, 1836.

Light near Pratt st. wharf.

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835. it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st. whf.

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st. whf.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	7 25	8 25
CORN, yellow,.....	bushel.	90	91
White,.....	"	85	87
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18½	20
Louisiana 19—Alabama	"	—	21
FEATHERS,.....	pound.	50	53
FLAXSEED,.....	bushel.	1 50	—
FLOUR & MEAL—Best wh. wh't fam	barrel.	9 00	9 50
Do. do. baker's,.....	"	—	—
Do. do. Superfine,.....	"	7 75	8 00
SuperHow. st. in good de'd	"	8 00	8 25
" wagon price,.....	"	7 50	7 62
City Mills, extra,.....	"	—	8 37
Do.	"	—	7 87
Susquehanna,.....	"	8 00	8 25
Rye,.....	"	25	50
Kiln-dried Meal, in hhd.	hhd.	—	19 00
do. in bbls.	bbl.	4 00	4 25
GRASS SEEDS, red Clover,.....	bushel.	4 50	4 75
Timothy (herds of the north)	"	2 75	3 25
Orchard,.....	"	—	2 50a3
Tall meadow Oat,.....	"	2 25	2 50
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, de' rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 00	8 25
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"	—	—
OATS,.....	"	35	37
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	—	3 25
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	100	112
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	4 50	5 00
" brown and red,.....	"	5 00	7 00
" fine red,.....	"	7 00	9 00
" wappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf, ..	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	2 00	2 15
Red,.....	"	1 90	2 05
WHISKEY, 1st pf. in bbls.	gallon.	40	41
" in bbls.	"	38	—
" wagon price,.....	"	35½	—
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 25	—
To Wheeling, ..	"	1 50	—
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,.....	"	38 40	26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

au 23

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BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	15	16
Shoulders,.... do.....	"	12	—
Middlings,.... do.....	"	13½	13½
Assorted, country,.....	"	10	11½
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,.....	"	20	25
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	25 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 75	1 81
CHOP RYE,.....	"	—	1 87
EGGS,.....	dozen.	—	12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 50	3 62
Mackerel, No. 1, \$8.——No. 3	"	—	5 25
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	15	—

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par
Branch at Baltimore,.....	do
Other Branches,.....	do
MARYLAND.	
Banks in Baltimore,.....	par
Hagerstown,.....	¾a
Frederick,.....	do
Westminster,.....	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton, do	do
Salisbury,..... 5 per ct. dis.	do
Cumberland,.....	1
Millington,.....	do
DISTRICT.	
Washington,.....	do
Georgetown,.....	Banks, ½
Alexandria,.....	do
PENNSYLVANIA.	
Philadelphia,.....	¾a
Chambersburg,.....	¾a
Gettysburg,.....	do
Pittsburg,.....	2a2½
York,.....	¾a
Other Pennsylvania Bks. 1½a	do
Delaware [under \$5].....	3a4
Do [over 5].....	2a3
Michigan Banks,.....	5a
Canadian do.....	5a
VIRGINIA.	
Farmers Bank of Virginia 1½a	do
Bank of Virginia,.....	do
Branch at Fredericksburg do	do
Petersburg,.....	do
Norfolk,.....	do
Winchester,.....	do
Lynchburg,.....	do
Danville,.....	do
Bank of the Valley,.....	do
Branch at Romney,.....	1
Do. Charlestown,.....	do
Do. Leesburg,.....	do
Wheeling Banks,.....	3
Ohio Banks, generally 3a3½	do
New Jersey Banks gen. 1½a	do
New York City,.....	2a2
New York State,.....	2½a3
Massachusetts,.....	2a2½
Connecticut,.....	2a2½
New Hampshire,.....	2a2½
Maine,.....	2a2½
Rhode Island,.....	2a2½
North Carolina,.....	3a3½
South Carolina,.....	3a3½
Georgia,.....	3½a4
New Orleans,.....	6

FARMER'S REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	do	do	do	\$33
11 " Permanent Bottom 28,	do	do	do	31
13 " " 43,	do	do	do	48
13 " Revolving Bottom 45,	do	do	do	50

15 " " " 50, do do do 56
20 " Large size fitted for horse-power 80, do do 90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

au 23 2t

Light near Pratt st. wharf.

OXEN WANTED.

THE Editor of the Farmer & Gardener, Baltimore, Md. wishes to purchase 4 pair of Eastern Oxen. It is necessary that they should be good matches, young, large sized, well broken, of docile disposition, and that the yoke in which they have been used to work should accompany each pair.

Farmers and others, to the eastward, possessing such animals will please make immediate application, stating the character, &c. of their respective oxen, price deliverable at Baltimore, and time when they can be delivered.

Editors to the eastward with whom we exchange will confer a favor which will be reciprocated by giving this a few insertions. au 23

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

CONTENTS OF THIS NUMBER.

Notice of Chaptal's essay on the Beet culture—recommendation to sow turnips—seeds raised at Clairmont Nursery—silk culture in Virginia—mode of exterminating rats—recommendation to sow certain vegetables—do. wheat—do. to plant Strawberries—notice of some splendid Dahlias—state of crops in parts of Maryland—do. in Pennsylvania—mode of rearing calves—committee of Congress on the Silk business—Chaptal on the Beet culture—crop of broom corn—profits of the Silk culture—badness of the present crop of Wheat—preventive of the Hessian fly—Gamma Grass—Sweet corn—mode of raising ducks and turkeys—antidote against mice—substitute for ringing Swine—farmers should keep accounts—kindness of a cow—the effect of the moon—advertisement—prices current, &c.

CO-PARTNERSHIP FORMED.

JAS. MOORE respectfully informs the public that he has associated Mr. Richard F. Maynard with him in the business formerly conducted under the firm of *Sinclair & Moore*, and subsequently, by himself.

The business of the new firm will be conducted under the name of *MOORE & MAYNARD*, and they flatter themselves that the long experience of the first named, combined with the practical knowledge of the last, will enable them to give entire satisfaction to those who may be pleased to extend towards them their confidence and patronage. To such they would tender, in advance, the assurance that no exertion will be left unessayed by them, to fill every order with which they may be honored, with promptitude and fidelity.

They have now on hand, and intend constantly to keep a complete assortment of every kind of *Agricultural Implements, Garden Tools, Field Seeds*, and indeed every thing tending to increase the working facilities of the farmer and planter, and to lose no opportunity of adding such inventions to their already extended list, as, in their opinion, will be promotive of the interests and convenience of the Agricultural community.

The business of the new firm will be conducted at the old stand in *Light*, near *Pratt-street*, and will be distinguished as heretofore, as

THE MARYLAND AGRICULTURAL REPOSITORY. Among the articles in their line of business, of their own manufacture, which they have now for sale, are the following, viz:

PLOUGHS.

The Self-Sharpening Plough possesses the advantage of having a moveable steel point, from fifteen to twenty-four inches long, which can be reversed, as a bevel is formed by wearing, and advanced as it becomes shorter, so as to bring into actual wear from twelve to eighteen inches of a solid wrought bar; by thus changing the point, the share continues to perform its work well until worn off nearly up to the mould board; whereas, without this moveable point, shares are generally rendered useless when only half worn.

This valuable principle may be applied to any shape of mould board.

SELF-SHARPENING.

- No. 00. The smallest size is a 7 inch seed and cultivating plough price \$5 25
- No. 0. A one-horse cultivating plough, 8 inches wide, nearly the same length as the smaller one, but has a bolder mould board, and better adapted to sandy lands. The shares and heels of these two sizes suit each other, 5 75
- No. 1. A light two-horse plough, 6 50
- " 2. A two-horse plough, 9 inches wide, 7 00
- " 3. A two-horse flushing plough 8 00
- " 4. A heavy three-horse plough with sword colter, 12 00

WOOD'S PATENT.

- No. 21. A seed and cultivating plough, 8 inches wide, with cast share 5 00
- Corn. A one-horse plough, with wrought iron standard and cast share 5 50
- No. 1. A. Is a light two-horse plough, 9 inches wide 6 50
- No. 1½. A two-horse plough, with sword colter and cast share, a superior flushing plough 8 50
- The above ploughs of Wood's Patent are entitled to two extra shares each, at the above prices.

SINCLAIR & MOORE'S IMPROVED.

- 6 inch. A superior seed plough, with cast share 4 50
- 7 " A one-horse do do 5 25
- 8 inch. A light two-horse plough, with cast share 5 75
- 9 " A two-horse do do 7 00
- 9 " do wrought share 9 50
- 10 " A heavy two, or light three-horse plough, with sword coulter and cast share 9 50
- 10 " A three-horse plough with wrought share 11 00
- 10 " A three-horse plough with sword colter, a superior flushing plough, made both right and left handed 12 50
- 12 " A heavy three-horse plough, with sword colter 15 00

M'CORMICK'S PATENT.

- No. 7 inch. One-horse wrought shared plough 5 50
- " 8 " Light two-horse ditto ditto 7 00
- " 9 " Two-horse plough with sword colter 9 50
- " 10 " Three-horse plough, with colter 12 50
- " 12 " Heavy three-horse plough, with colter 15 00

BAR SHARE.

- No. 1. Is a 7 inch plough, with wrought share and lock colter 6 75
- " " Is a 7 inch plough, without colter 5 50
- " 1½ A one-horse plough, with wrought share and colter 7 00
- " 2 A light two-horse plough, with wrought share and colter 8 50
- " 3. A two-horse plough, with wrought share and colter 10 00
- " 3½ A heavy two-horse plough, with wrought share and colter 10 50
- " 4 A three-horse plough, with wrought share and colter, a superior flushing plough 12 00
- " 5 A heavy three-horse flushing plough, with wrought share and colter, 15 00

HILL-SIDE.

- A plough suited to two horses, with cast share, changes with ease, so as to throw the furrow to the right or left 11 00
- Ditto with wrought share 13 00

SHOVEL-PLOUGH.

- Wrought shares 4 50
- Double-shovel 6 50

CARY-PLOUGH.

- No. 1. A one-horse plough, having nearly the form of mould board as the well known Cary or Dagon plough, but has a cast iron mould board and wrought share. The mould board is bold, opens a wide furrow, does clean work, and is very strong and simple in its construction 5 50

- No. 2. A light two-horse plough of the same construction 6 50

BUFFALO-PLOUGH.

- No. 1. H. A one-horse plough, with cast share 5 50
- No. 1½ H. A two-horse plough, with cast share 8 00
- " 2. H. Heavy two-horse ditto 9 50
- The form of the mould board of these improved ploughs, is somewhat on the principle laid down by Thomas Jefferson, but varied so as to equalize the pressure on the mould board, as observation in the practical use has dictated.

DOUBLE MOULD BOARD.

- Two sizes; a very useful plough for cultivating potatoes, &c. and for ploughing up potatoes at the time of gathering the crop. Price \$7 00 to 10 00

EXTRA CASTINGS FOR PLOUGHS.

FOR SELF-SHARPENING PLOUGHS.

- | No. | 00 | 0 | 1 | 2 | 3 | 4 |
|-----------|------|------|------|------|------|------|
| Shares | 25 | 25 | 25 | 25 | 31½ | 37½ |
| Heels | 12½ | 12½ | 12½ | 12½ | 12½ | 12½ |
| Landsides | 75 | 75 | 75 | 75 | 75 | 100 |
| Md. bds. | 1 00 | 1 00 | 1 25 | 1 75 | 1 75 | 2 75 |

FOR SINCLAIR & MOORE'S PATTERNS.

- | No. 6, or 6 in | 7 in. | 8 in. | 9 in | |
|----------------|--------|--------|--------|--------|
| Shares | 25 | 25 | 31 1-4 | 37 1-2 |
| Heels | 12 1-2 | 12 1-2 | 12 1-2 | 18 3-4 |
| Md. bds. | 1 00 | 1 50 | 2 25 | 2 75 |

WOOD'S NEW YORK PLOUGHS.

- | No. 21 | Corn | No. 1 a | No. 1 1-2 |
|-----------|--------|----------|-----------|
| Shares | 25 | 25 | 37 1-2 |
| Landsides | 37 1-2 | 37 1-2 | 75 |
| Md. bds. | 1 50 | 1 37 1-2 | 1 75 |

Also, castings of all kinds made to order, at moderate prices.

CULTIVATORS.

- Those with five wrought tines, of the most approved shape 5 75
- Five tines of more simple form 5 00
- Cast tined from 3 50 to 4 50

If made to expand, 50 cents additional.

WHEAT FANS.

- Improved 26 00 to 30 00
- Common Fans 20 00
- Box Fans, small size 16 00

STRAW CUTTERS.

- 20 inch. Cylindrical straw cutters, suited to horse or water power capable of cutting from 75 to 100 bushels per hour 75 00
- Extra knives per set 16 00
- 14 inch. Box same construction, suited to manual power 45 00

- Extra knives per set 5 00
- 11 inch. Box 30 00
- Extra knives per set, 4 00

These machines are self-feeders, the knives are of spiral form, and act on the bed-steel in such a manner as to cut with great ease without a very keen edge: many thousand bushels have been cut with them without sharpening the knives.

- Common Dutch Straw Cutter with treadle 7 50
- Ditto without treadle 5 00

CORN SHELLERS.

Of the various kinds offered to the public, the one generally preferred is that with a vertical iron wheel with spring holders, which adapt themselves to any sized ears. There is no machine more certain to answer the intended purpose; they are very durable and easily kept in order, and will shell from 15 to 20 bushels per hour by hand, and are now sold at \$20,00 with a discount of five per cent. if cash be paid.

HARVEST TOOLS.

- Grain cradles with warranted scythes 4 00
- Grain and grass scythes, and scythe stones. 2 25
- Grass scythes and sneaths ready hung do do
- Bramble scythes do do
- Hay and manure forks, rakes, sickles and composition scythe rifles, &c. &c.

GARDEN AND FIELD TOOLS, &c.

- Hedge shears Turnip hoes
- Pruning do Elwell's hoes
- Ditto knives Mattocks
- Ditto saws Picks
- Ditto chisels Socket shovels
- Bill hooks Trace chains
- Transplanting trowels Hames
- Spades Tussocking Hoes
- Garden Reels Hay knives
- Ditto lines Straw knives
- Iron rakes Dock raisers
- Scuffle hoes Ox yokes and bows.
- Wove Wire for screens, fans, cellar windows, safes, &c.
- Thomson's superior Axes, drawing knives, hatchets, and other tools.
- Cotton Gins made to order.

FIELD SEEDS.

They have in store the following seeds, viz:—*Timothy, Red Clover, Orchard Grass, Herd's Grass, Tall Meadow Oats, seed, Buckwheat, seed, Wheat of various sorts, do, Rye, Millet, Oats of the several kinds, &c.*

They will particularly call the attention of farmers to a crop of 200 bushels of orchard grass seed which they will have in store and on sale on the 1st September, which is represented of peculiarly by fine quality, being cured with great care.

Horse Scoops, for removing dirt, a most effective invention.

CORN CRUSHERS. This implement may be worked by either hand or horse power, and is considered an invaluable acquisition to those who have large stocks, as the cob and grain of the corn are rendered almost equally available as feed.

DOUBLE CORN SHELLERS. It is not saying too much of these simple though powerful implements, when it is affirmed, that they are the most useful among the labor saving inventions, one of them being competent to shell more corn in a day by hand-power than 20 men.

CYLINDRICAL STRAW CUTTERS, IMPROVED. The universal approbation conceded to the large sized Cylindrical Straw Cutters, having induced them to prepare the small sized ones upon the same convenient principle, they are happy in being able to announce a supply of these very desirable and justly popular articles.

JAMES MOORE will carry on the *Foundry* individually, and he avails himself of the occasion to say, that from his own experience, the skill of his foreman, and his disposition to please, together with the superiority of his workmen, the public have every guarantee that the work will be faithfully executed. Castings of all kinds, and of the best quality, will be furnished to order at the shortest notice, deliverable at the store or any other part of the city, or on board vessels.

DURHAM & DEVON CATTLE.

Prime animals of the above breeds always for sale by the editor of this paper. aug. 23

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 19.

BALTIMORE, MD. SEPTEMBER 6, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, SEPT. 6, 1836.

Hezekiah Niles, Esq. late proprietor and editor of *Niles' Register*, has retired from that valuable and time-honored publication,—his constitution which for some years had been impaired by too close application to the arduous duties of his station, having become so infirm of late as to render it necessary that he should abandon his occupation and seek the restoration of his health in the more quiet walks of private life. However men may differ with this veteran public writer, upon the peculiar doctrines of the political economy which he taught, all must admire the manly spirit which he displayed in the illustration of his principles, and the clear and comprehensive manner in which he enforced them. As a man of pure morals, sound integrity and uncompromising honor, he has no superior. We know him, and speak what we do know; and while we regret the melancholy occasion which has caused him to quit a profession that he adorned by his talents, industry, and unflinching honesty, we tender him our most fervent hopes for his future prosperity, health and happiness.

He has sold his establishment to his eldest son, Col. Wm. Ogden Niles, late proprietor and editor of the *Fredericktown Herald*, a gentleman every way qualified to realize those high expectations, which the public have a right to expect in the successor of his justly esteemed father. For many years prior to his removal to Frederick, Col. Niles was the efficient coadjutor of his father, and assisted him in his editorial labors, and thus acquired a knowledge of the details and routine of duties of the office, which will enable him now, that the whole burthen has fallen upon him, to acquit himself in a way that must render him a favorite with the old friends of the *Register*, while we trust it will raise up for him new ones in every quarter where that faithful record may wend

its way. By education, by habit, by long continued training under the immediate instructions of his parent, Col. Niles has enjoyed advantages which but rarely fall to the lot of a single individual, and when we add to these prerequisites, those which he derives from the possession of superior talents, genius, tact for business, and the virtuous ambition of excelling, we think the public have every guaranty they could desire, that the reputation of the work will be ably and triumphantly sustained. For ourself, we look upon it as a fortunate circumstance that an individual so gifted—so peculiarly qualified to fulfil the trust—has succeeded to the chair so recently occupied by Hezekiah Niles. And while, in the undissembled sincerity of our heart, we cordially welcome him into his new post, we trust that his labors will receive a generous support, conscious that if it should be commensurate with his deservings, he will be cheered and animated in his onward course by those solid marks of favor which vouchsafe to their recipient pleasure, honor, and profit.

WORK FOR SEPTEMBER.

ON THE FARM.

The sooner the farmer gets out his grain, which may still be in the straw, the better, because, besides its being thus easier protected from vermin, he will be in a better condition to avail himself of the advantages of market whenever favorable opportunities may offer. It is now no longer a matter of doubt as to the disastrous failure of the *Wheat* and *Rye* crops in every direction. In scarcely any district of our country, have the average of these crops been more than two-thirds. In many one-half, and even one-fourth average crops have not been realized, while in others, many farmers have not reaped more than twice the amount of seed sown. Nor is the evil of short crops the only one which the agricultural interest have to suffer, for even the grain raised is of a most inferior quality in many instances. We have seen many samples of both wheat and rye, where a full moiety of the grains were most sadly defective, and in every direction we learn that owing to these and other causes, it will require fully a sixth more of wheat to make a barrel of flour,

Here, it appears to us, that a remark would be opportune. In preparing grain for market, would it not be judicious for farmers to separate as much of the defective grains from the good as possible, and to keep those which are anywise defective to be used as food for their stock. Those who have raised crops of *wheat* and *rye* fit for seed, should certainly lose no time in getting it out, and placing it in market, for they may rest assured each will command good prices and ready sale.

SOWING OF SMALL GRAIN.

Wheat.—Let no one who can conveniently do so, delay a day in getting his ground intended for wheat ready as speedily as possible; for although, in favorable seasons, it will answer to sow as late as the beginning of December, it is always best to get it in as early in the fall as possible, as it will be less liable to be winter-killed.

The soil best adapted to wheat is a clay-loam, and the best manure, if we may so call it, which can be used, is undoubtedly lime, which, if it be upon a grass-sward or clover-ley, should be spread evenly and equally upon the surface, and ploughed in, at least two weeks before sowing. The proportion to the acre to be determined by the quantity of living matter which may be upon the ground. If the field to be sown, is a stiff clay, one hundred bushels will be found infinitely serviceable: if a clay-loam, three-fourths of that quantity will be sufficient, the precise quantity to be increased or diminished in proportion to the amount of vegetable matter to be turned in, or woody substances existing in the soil and requiring decomposition. If the ground on which wheat be intended to be grown, should be a sandy loam, fifty bushels of lime will be sufficient, as there is more or less of calcareous matter to be found therein, and there is a greater aptitude in such soils to decompose vegetable substances than in most others.

Preparation of the Soil.—In the preparation of the soil, too much pains cannot well be taken to pulverize it well, and if it be tenacious clay, deep ploughing will certainly exercise a judicious influence on the growing of the plant by enabling it to descend to a much greater depth in search of its food, and also in maintaining a healthful condition in the earth itself. It is known to most men, even those of the most superficial observa-

tion, that the accumulation of stagnant water in the vicinage of dwellings invariably tend to the production of disease of some bilious type or other, by filling the atmosphere with vapors noxious to human health. This is produced not by any deleterious matter existent in the water itself, but arising from the chemical action which it undergoes while in contact with the earthy and vegetable matter on which it may rest, and as clay as soon as it becomes super-saturated with water, from its great powers of retention, keeps that element in a state of stagnation, consequences injurious to the health of the plant, must inevitably be produced. To avoid this, we would recommend deep ploughing, in order that the greater scope may be given to percolation, and that the superabundant moisture may escape.

In support of the position which we have assumed above, we will quote the following remarks of Mr. Arthur Young, which appear to us to be perfectly analogous and in point. He says:

"A grain of wheat when put into the ground at the depth of *three inches*, undergoes the following transformations. As soon as the farinaceous matter which envelopes the frame of the young plant contained within it, is softened into a milky state, a germ is pushed out, and at the bottom of that germ, small roots soon follow. The roots are gathering strength, whilst the germ, by the aid of the milky fluid, is shooting upwards, and when the milk is exhausted, the roots are in activity, and are collecting nourishment for the plant from the soil itself; but here, when the germ has fairly got above the surface, and become a plant, a set of *upper roots* are thrown out, close to the surface of the ground, which search all the superficial parts of the soil with the same activity as the under roots search the lower parts; and that part of the germ which separates the two sets of roots is now become a channel, through which the lower roots supply the plant with the nourishment they have collected. What an admirable contrivance to secure the prosperity of the plant! Two distinct sets of roots serve, in the first place to fix the plant firmly in the ground, and to collect nourishment from every quarter. The upper roots are appositely situated, to receive all the nourishment that comes naturally from the atmosphere, or artificially as manure to the surface, and serve the farther purpose of being the base of new stems, which are tillered up, and so greatly increase the productiveness of the plant."

In a loamy clay soil, a discreet judgment must be used to plough of sufficient depth, to afford the roots of the plant ample room to search for food, and to give the sun and air an opportunity

of dispensing their invigorating influence to the growing vegetation. On light sandy soils the depth of the fallow must be regulated by the same rules, for sun, air, and *pure water*, is just as essential to the growth of all kinds of crops as good soil itself.

Preparation of the Seed.—No seed wheat should be sown before it has been thoroughly winnowed and deprived of all extraneous substances, and all grains which may float on the surface when the wheat is submitted to immersion in water, should be cast aside, as the chances are as ten to one, that they have been deprived of their germinating property, and of course would only encumber the earth. After the seed is thoroughly cleaned of these foreign and inert substances, it should be put in a strong ley made of ashes,—a solution of strong lime-water, or a pickle made of salt, of strength sufficient to float an egg or potato. The more than disastrous failure of the wheat crop the present season render it especially necessary, that no precaution which prudence or foresight can invent, should be omitted to render the next crop as certain as it is within the power of man to make it. And if care in the preparation of seed was ever necessary, it is rendered more so now, by the great difficulty in procuring good seed wheat. It has been affirmed by many judicious and observing farmers, that the *Smut* in a succeeding crop may be avoided by submitting the grain to cleansing, by thorough washings in alkaline or saline solutions, and those who contend that the egg of the *Hessian Fly* is deposited on the kernel, maintain with great ingenuity, that it can be destroyed in the germ, by submitting it to the action of caustic and astringent solutions. If this be the case, prudence as well as duty would seem to indicate that those means should be used to effectuate so great a good. At all events, as the trouble is so trifling and the prospective benefit of such immense magnitude, the trial should be made.

After the seed shall have been thus prepared, they should be taken out of the *soak*, drained, and rolled in recently slaked lime, plaster or unslaked ashes. The three substances first named are preferable, inasmuch as the sower would be able to distribute the seed with the greater certainty, owing to their whiteness.

With regard to the efficacy of washing, in the removal of *Smut* from seed wheat, the experiment of that great and good man, and observing agriculturist, Mr. *Arthur Young*, should be received as conclusive:

"He sowed 14 beds with the same wheat seed, which was black with smut; a bed was sown with this wheat without washing, and had 377 smutty

kernels. A bed sowed with seed, washed in clean water, produced 325 smutty kernels,—washed in lime-water, 43 do; washed in a ley of wood-ashes, 31 do; washed in arsenic and salt mixture, 28 do; steeped in lime-water 4 hours, 2 do; steeped in ley 4 hours, 3 do; steeped in arsenic 4 hours, 1 do. Again, that which was steeped in ley, as before mentioned 12 hours, had none, and that steeped in the same kind of ley 24 hours, had none; that steeped in lime-water the same time, had none, while that steeped in arsenic the same time, had 5."

On the subject of the diseases of wheat, we will make brief extracts from the work of that good and great man, Sir John Sinclair, whose demise we recently noticed.

ON THE SMUT.

"This disease is a singular degeneracy of the grains in the ear, by which the substance that should form flour in the grain, becomes entirely changed into a black powder similar to a puff ball, or dusty mushroom. It was formerly so common that in some countries it was not unusual, to see twice or thrice as many smutted ears of corn as sound ones. Fortunately the means of preventing it, have long been in the power of every farmer, for any operation that completely frees the seed of smutty powder, or that *destroys* it by *acid*, *corrosive*, or *poisonous* applications, will have the effect of securing a clean crop."

"As a safeguard, it is an excellent practice when the wheat seed is first put into any liquid, to run it *very gently*, through a riddle, when not only the smut balls, but the imperfect grains, and the seeds of weeds, will float, and may be skimmed off at pleasure, which is not the case when the seed is put hastily into the brine or water."

Numerous are the modes by which smut may be prevented; as, 1. By pure cold water and lime; 2. By boiling water; 3. By water impregnated with salt; 4. By urine pickle; and 5. By a variety of other processes to be briefly enumerated.

"1. *Pure cold water and lime.* So important an operation, as the preparation of seed wheat, ought not to be performed in a slovenly manner, if the object be, to secure with certainty, the future crop, from so destructive a disease as smut. It may be effected, however, by pure cold water, provided the seed be washed in *several waters*, repeatedly changed, until it be perfectly clean, and then dried by quick-lime, slaked either with sea, or with boiling water."

"2. *Boiling water and lime.* This mixture, when properly applied, is found to be effectual. Sometimes chalk lime, recently burnt, is put into a copper of boiling water, and as soon as the lime

is dissolved, the mixture, at this degree of heat, is poured upon the wheat, previously spread upon a stone floor, and the wheat and mixture are immediately well turned together with shovels. Sometimes the wheat, put into a common wicker basket, is dipped two or three times, in a mixture of hot water and quick lime, have been successfully used, after the seed has been well washed and skimmed."

3. *Salt water.* It is a still more effectual practice, to make use of either fresh water so impregnated with salt, that an egg will float in it, or of sea-water with such a quantity of salt dissolved in it, as to be equally strong, by which its specific gravity will be so increased, that all unsound grains will swim in the pickle. About a bushel of wheat at a time is put into a sufficient quantity of this pickle, in which, when stirred, all the light or diseased grains will rise to the top and may be skimmed off. The seed wheat is then separated from the pickle, spread upon the floor, and a sufficient quantity of new slaked lime, to dry the whole, sifted upon it."

4. *Urine Pickle.* Some farmers are satisfied with merely sprinkling a heap of seed with stale urine; and then drying it with lime; but others are of opinion, that it should be done with greater care. The wheat after being thoroughly dressed should first be washed in pure water, and all the weak grains, and other light substances, skimmed off, until the water remain quite clear, and no more grains when they are stirred, will rise to the surface, it should then be dipped for five, and not more than ten minutes, in a vessel containing stale human urine, then dried with quick lime, and the sooner it is sown afterwards the better. This steeping is always effectual.

This steeping of the seed, first in pure water, previous to its being immersed in urine, is attended with some additional trouble, but is an excellent precaution, by which any risk of injury from the urine is prevented, should the grain not be immediately sown, which, however, is desirable. The grain thus first imbibes a harmless species of moisture, and the more acrid matter, only acts upon the surface, where the source of the evil is deposited. After the wheat has been pickled and dried with quick lime, if not immediately used, it ought to be spread as thin as possible, upon a stone floor to become dry. If it be put close together, and lie in that state for a day, not a grain will vegetate."

"*Remedies against Rust or Mildew.*" 1. Cultivating hardy sorts of wheat: 2. Early sowing: 3. Raising early varieties: 4. Thick sowing: 5. Changes of seed: 6. Consolidating the soil after

sowing: 7. Using saline manures: 8. Improving the course of crops: 9. Extirpating all plants that are receptacles of rust: and 10. Protecting the ears and roots of wheat by rye, tares, and other crops."

Putting in the seed. There is a diversity of opinion whether wheat should be harrowed in and then rolled, or whether it be not best to plough it in about three or four inches deep. Many good vouchers are at hand to prove that the latter method is preferable, and that by thus putting it in, it will be prevented from being winter-killed. Where it is ploughed in, it should be rolled early in the spring following.

Quantity of Seed to the acre. Less than 6 or 8 pecks to the acre should not be sown, and under peculiar circumstances of fertility even two bushels and a half might be safely put in.

Rye. Your rye should be put in during this month or the next: the sooner it is sown, the better chance it will have to resist the frosts and of not being winter killed. Sandy or gravelly soils are best suited to its growth, and though many affirm that it does not require that the land should be manured, we have no doubt ourself that a moderate portion of manure well rotted, of ashes, or lime, would have a very salutary effect. Whatever ground it may be put upon, every possible pains should be taken to have it in fine tilth. If it be not well pulverized, it will assuredly not thrive as well as might be desired.

Quantity of seed to the acre. With regard to the precise quantity to be sown to the acre, a diversity of opinion exists. In Europe from 2 to 2½ bushels have been sown with decided good effect. In this country the practice which generally prevails is 1 bushel to the acre. But whether between these two extremes the well-judging farmer would not find the golden medium, is a question which we deem worthy of consideration. If the seed rye be large, less will be required; but we think in most cases 6 pecks would not be found to be too much.

Turnips. If you have not sown turnips, you may still do so up to the 15th of this month, and if the season be favorable, you will doubtless reap a good crop. In preparing your soil you cannot be too careful to have it finely pulverized. The proper manure for turnips is ashes, a compost of ashes, lime and earth, well rotted manure of any kind, or cow manure. After the ground is ready sow one pound of seed to the acre and roll them in. When your turnips come up sprinkle over each acre ten bushels of ashes mixed with one of plaster of paris. After they are about two inch-

es high thin out to about the distance of 12 inches apart, and unless the elements and fly combine against you, you will have a good crop.

Manure. Attend to your manure heap: if you have hogs in pen let all the weeds and refuse grass be thrown to them daily, and once a week convey the manure they shall have made to your dung heap: if your hogs are at large, let all the weeds and refuse vegetable matter of all kinds be thrown upon your dung heap and have them covered with earth, and be sure that there be no drain to carry off the liquid part of your manure.

If you have an apple or peach orchard turn your hogs and pigs into it, as they will eat up myriads of insects that would otherwise next spring and summer destroy your trees. We have often urged this practice upon our readers, and the more we think upon the subject, the more highly do we think of its propriety.

If you have any field that has been recently cleared, in which sprouts have grown upon the remaining stumps, cut them off and girdle that part of the trunks which are above ground.

Timothy. Now is the time to put in your timothy seed. The ground should be well manured and brought to a very fine tilth. If you desire to cut your timothy next summer, sow it alone: if that be not your object you may put it in with your wheat or rye; or you may sow it with turnips, taking care not to sow more than one-fourth the usual quantity of the latter seed when sown alone. In the spring, a top dressing of a compost composed of 10 bushels of ashes and 1 of lime or plaster of paris would be found of great utility.

The quantity of seed to the acre is from 8 to 12 quarts.

Burnet. This is a hardy grass and may be now sown. 16 or 20 lbs. of seed to the acre is the proper quantity.

Rye Grass. If you sow now, you may graze upon it next season without injuring it. Two bushels of seed to the acre should be sown. The ground should be prepared as for any of the other grasses.

IN THE KITCHEN GARDEN.

Before we enter upon the detail of the kind of vegetables which require planting during this month, it may not be out of place to observe that every farmer and planter who values the support of his household, or who may desire to ensure for his table a good supply of vegetables, which by the bye is a consideration which every head of a family should hold in the highest estimation, for there is nothing more promotive of solid comfort, nor evincive of a greater degree of attention to the

necessities of elegant hospitality than a well stored garden. Certainly there is nothing so acceptable to the eye of taste, as a table judiciously set off with various vegetable productions.

Spinach. If you have already provided yourself with a crop of *spinach*, and it is, as it ought to be, sufficiently advanced to require it, clean it from weeds, and then thin the plants so as to leave room enough for the expansion of the leaves and vigorous growth of the plants, say 4 or 5 inches between each plant.

With respect to securing a supply for winter and spring use, you cannot too early in this month prepare and seed your ground. You should not delay a day, for the sooner it is put in the more certainty there will be of its being what you would wish it to be—a luxurious crop. The best kind to sow now, because of its ability to endure frost, is the *prickly seeded* kind, though many gardeners of experience and judgment prefer what is called the *Burdoch spinach*.

Among your crop of spinach you may sow the hardier kinds of lettuce.

Cabbage. If you desire to have early cabbages next season, you must avail yourself of the present moment. Sow your seed any time between this and the 15th of the month, the earlier the better.

The kinds which are best to be sown are the *Early Scotch York*, *Early London Battersea*, *Sugar Loaf*, *early Bullock's-heart*, *early George*, *Paris Dwarf*, *Large York*, *Early Harvest*, *Flat Dutch*, and *Cape Savoy* or *green curled*.

Sow the seed in beds of good garden mould, and either cover or rake them in, so that they may be buried about a quarter of an inch deep. If the weather should prove dry, water the plant beds every evening until the plants are up, and in about five weeks they will be fit for being planted out.

Lettuce. Sow your lettuce now to be planted out in warm borders next month for spring use. The *Brown Dutch*, large White Cabbage, and large green headed lettuces are among the best kinds.

Radishes. Now is the time to put in your fall and winter radishes, and we would remark, that the black, white, and yellow Spanish rank among the favourites of the epicurean judges.

Endives. Plant out your Endives. *Winter Cresses* and all the small saladings should now be sown.

Celery.—Earth up your celery plants, taking care not to cover the hearts—let your work be done on a dry day.

Cauliflowers.—From the 20th of this month,

you may sow your cauliflower seed. Select a rich spot, dig your bed about 3 feet wide, rake well, and immediately sow your seed, then rake them in about a quarter of an inch deep: or if you prefer so doing, after sowing the seed you may spread over the bed a quarter of an inch of rich light earth in depth. If the weather should be dry, the bed should be watered before and after the plants are up.

Strawberries.—As you may not have had time last month to prepare your beds and finish your transplantations of strawberries, do so now, and thus secure to your family one of the greatest luxuries, as well as one of the most healthful, of the family of fruits.

RHUEARB.

This delightful vegetable has been too long neglected by the horticulturists of our country, and we take this opportunity of commending it to the favourable notice of our readers. As an ingredient for tarts, there is nothing superior to it. Those who have cultivated it, say with great truth and propriety that it is preferable to the gooseberry for such culinary purposes: and it is so prolific in its growth that a dozen, or a dozen and a half of plants is sufficient for a family.—But if it is valuable as a desert, it is still more so for its medicinal virtues, and has no equal in those distressing affections of bowels which so afflict our children and carry them off by hundreds each summer. No head of a family who regards the health of his offspring should be without some dozen of plants in his garden, as in them he will have a sure and certain curative for the diseases to which we have before alluded. A friend in whose judgment and veracity we have every confidence, assures us, that an interesting little daughter of his was thoroughly cured by eating pies and other culinary preparations of the Rhubarb, after laboring for a long time under a chronic *Diarrhæa*, which had so debilitated her, that hope of her recovery was abandoned.

The time for sowing the seed is *November*, and we take this *early* occasion of commending it to notice, in order that our remote subscribers may, if it so please them, avail themselves of the information herein contained, for we are solicitous to see it brought into general culture.

The following directions for its culture, we copy from Thorburn's catalogue:

Rhubarb.—Sow in a rich, dry, sandy loam, about three fourths of an inch deep, as early in the spring as possible; (if done in November, they will vegetate in spring with more certainty;) when the young plants appear, keep them free from weeds; if the weather be dry, water them

frequently, though with little at a time; and be very careful to protect them from the mid-day sun, till they get tolerably strong, for if exposed fully to it during their infant state, few will escape destruction. A wide board placed sideways on the south side, projecting over the plants a little, will serve this purpose effectually, without depriving them of the benefit of the circulating air. The first season is their critical period; having survived that, they have nothing to fear. In November, the leaves having decayed, cover the crowns of the plants two inches deep with earth from the intervals. In April strip off the covering till you see the tops of the plants; give all the ground a slight digging; dress it neatly, keep the beds well hoed, and always free from weeds. It is much better by slips from the old roots, in the spring months. The seed starts very readily, if sown in the autumn, but vegetates rather slowly in the spring. The flower-stalks should never be suffered to run to flower, but taken off as soon as they arise.

One grower for the Edinburgh market, who a few years ago found great difficulty in selling 40 or 50 dozen bunches of stalks in a morning, now sells from 3 to 400 dozen bunches.

Inconceivable quantities of this plant are also raised for the London and other markets in England, by forcing and in the natural way. We copy the following account of Knight's plan of forcing it, from Loudon's comprehensive and invaluable "Encyclopædia of Gardening."

"The root of every perennial herbaceous plant contains within itself, during winter, all the organizable matter which it expends in the spring in the formation of its first foliage and flower-stems; and it requires neither food nor light to enable it to protrude these, but simply heat and water: and if the root be removed entire, as soon as its leaves become lifeless, it will be found to vegetate, after being replanted, as strongly as it would have done, if it had retained its first position. These circumstances led me, in the last winter, to dig up the roots of many plants of the common rhubarb, (which I had raised from cuttings in the preceding spring) and to place them in a few large and deep pots, each pot being made to receive as many as it would contain. Some fine sandy loam was then washed in, to fill entirely the interstices between the roots, the tops of which were so placed as to be level with each other, and about an inch below the surface of the mould in the pots, which were covered with other pots of the same size, inverted upon them: being then placed in a vinery, (in a situation where nothing else could be made to thrive on account of want of light,) and being copiously supplied with water, the plants vegetated rapidly and strongly: and from each pot I obtained three successive crops, the leaf-stalks of the two first being crowded so closely as nearly to touch each other over the whole surface of the pots.

"As soon as the third crop of leaves was broken off, and a change of roots became necessary, those taken from the pots were planted in the open ground, their tops being covered about an inch deep with mould, and I have reason to believe, from present appearances, that they will live and recover strength, if given a year of rest, to be fit for forcing again. Should they, however,

perish, it is of very little consequence; as year-old roots, raised from cuttings or even from seeds, sown in autumn in rich soil, will be found sufficiently strong for use. The heat of a hot-bed, a kitchen, or other room, and on the approach of spring, (probably at any period after the middle of January,) a cellar will afford a sufficiently high temperature; and the advantage in all cases will be that of obtaining from one foot of surface as much produce as in the natural state of growth of the plants would occupy twenty feet, and in the shady space of the vinery or peach-house, not applicable to other purposes, and without incurring any additional expense in fuel, or doing injury to the soil, a succession of abundant crops may be raised."

In taking the stalks, remove a little earth, and bend down the leaf you would remove, slip it off from the crown, without breaking or using the knife. The stalks are fit to use when the leaf is half-expanded; but a larger produce is obtained by letting them remain till in full expansion.

Dr. Kitchiner gives several directions for cooking rhubarb, which must make excellent dishes: we can speak to the goodness of one of them. It is rather a matter of surprise, that this plant should be so little an object of cultivation in this country, when it is known to succeed so well, and furnishes a delicious repast for the table, early in the spring, before any fruit arrives at sufficient maturity for that purpose.

"Peel and wash one or two dozen sticks of rhubarb; put them in a stew pan, with the peel of a lemon, a bit of cinnamon, two cloves, and as much moist sugar as will sweeten it; set it over a fire, and reduce it to a marmalade; pass it through a hair sieve; then add the peel of a lemon, and half a nutmeg grated, a quarter of a pound of good butter, and the yolks of four eggs and one white, and mix all well together; line a pie dish, that will just contain it, with a good puff paste; put the mixture in and bake it half an hour."

"Prepare rhubarb as above; cut it into small pieces into a tart-dish; sweeten with loaf-sugar pounded; cover it over with a good short crust paste; sift a little sugar over the top, and bake half an hour in a rather hot oven; serve it up cold."

The following mode for making sherbet from it, is given by the same author: "Boil six or eight sticks of rhubarb (quite clean) ten minutes in a quart of water; strain the liquor through a tamis into a jug, with the peel of a lemon cut very thin, and two table-spoonsful of clarified sugar; let it stand five or six hours, and it is fit to drink."

IN THE NURSERY.

Your apples, peaches, almonds and nectarines, may be continued to be budded until the latter part of this month, if the weather should continue mild.

The ground in which you may intend to plant out any fruit trees the next and succeeding month, should now be ploughed up, in order to give the vegetable matter an opportunity of mellowing by the time you wish to transplant your young trees, and afford a much better opportunity to the roots to produce new and healthy fibres.

In the latter part of this month, you may layer down your gooseberries, currants, honeysuckles, and all other shrubs of a similar nature.

Thoroughly clean your nursery beds.

SALE OF A CROP OF LAST YEAR'S WHEAT.

Baptist Mezick, Esq., sold, we learn, on Thursday last, his entire crop of wheat grown in 1835, at his beautiful estate about twenty miles from Baltimore, on the Chesapeake, for \$2.40 for white, and 2.20 for red, per bushel. These are fine prices, and will remunerate this gentleman well for its cultivation, and the interest of the money while he kept it on hand; but high as they evidently are for wheat, we do not believe that it has yet reached its maximum price:—and, indeed, unless we should have liberal importations from across the ocean, it will be a difficult task to say what price it may not reach before the harvesting of the next year's crop.

A NEW BREED OF SHEEP.

The subjoined advertisement was cut out of the Hampshire Chronicle, an English paper, of the 20th of May last, and sent to us by a friend for publication. We thank him for his polite attention, and insert it with pleasure. The information it contains we know will be gratefully received by our readers, as it will give probably the first notice of a very superior *new breed of sheep*, that has appeared in our country.

TO SHEEP BREEDERS.

A Pill for Prejudice.

One hundred half-bred Cotswold and Down Teds, bred by myself and brother, and fed by Mr. Cannon, Maidenhead, Berks, shorn on the 15th of March last, then 13 1-2 months old, produced, on an average, nine pounds of wool each. Ten were immediately sold at 65s. ten at 62s. and the last 20 culls of the hundred, at 55s. each, out of their wool, for which 2s. per lb. has been refused. Calculating the wool at this price, the 100 teds have produced 400l. or 4l. per head. I seek in vain for a parallel in the present, or a record of a similar price in any past age, PEEL'S BILL, or 12s. 6d. notes turned into 20s. gold pieces, notwithstanding. The eight half-bred Teds I exhibited at Romsey produced 80 1-4 lbs. of wool; over 10 lbs. each. The two years old ram (half breed) 15 1-4 lbs. clean and well washed—all of which may be seen.

On 770 acres of arable and meadow land, we keep 620 breeding ewes and 220 teds, being 70 over a sheep to an acre, always at fold, and *always at home*. Can our crack Down Breeders declare to the latter point with a like number in proportion to acres? Five years impartial trial of this cross emboldens me to declare myself *open to the world*, to match it against any other breed, taking as the criterion of merit, the combination of those rare but grand desiderata,

weight and value of fleece, symmetry of carcase, quality of mutton, capacity for folding, with aptitude to fatten and arrive at early maturity.

I am, &c.

J. T. TWYNAM.

Whitchurch Farm, Hants, May, 1836.

Mr. Twynam in a letter remarks, that these Sheep are a *New Breed* of his own fancy—and have been produced by crossing the *Hampshire Down*, with the *New Leicester*—and whose equal he has two successive years challenged the *World* to produce.

M. GOOLD, New-York.

[From Chaptal's Agricultural Chemistry.]

ON THE CULTIVATION OF THE BEET ROOT, AND THE EXTRACTION OF SUGAR FROM IT.

(Continued.)

ON THE DISTILLATION OF BEET MOLASSES.

The molasses from beets, when exhausted of its sugar, has not the pleasant taste of that furnished by the sugarcane, but retains a bitter taste which renders it fit only for distillation.

The product in molasses is as great as that in sugar: each of the grandes-batarades in which the product of the first boiling is crystallized, yields 40 lbs. of molasses, and 45 lbs. of brown or unrefined sugar: these 40 lbs. of molasses, boiled over, produce 6 lbs. of sugar and 34 lbs. of molasses; thus from two boilings are obtained 34 lbs. of molasses, and 51 lbs. brown sugar.

As this sugar is not pure, it is necessary, in order to refine it, that it should be melted down, crystallized and whitened. By these operations some molasses and some sirup is extracted from it. The molasses flows from the moulds when they are placed upon the jars, after the brown sugar has crystallized; the sirup is formed during the process of claying; this is boiled over to obtain the sugar dissolved in it, and the molasses remaining is mixed with that in the jars to be distilled.

The weight of molasses obtained by these various operations is nearly equal to that of the brown sugar.

Supposing that I wish to produce fermentation of 445 lbs. of molasses, to prepare it for distillation: I proceed in the following manner. I throw the whole quantity of molasses into a vat, and there add to it such a quantity of water as shall cause the liquor to mark 7 or 8 degrees of concentration. I stir the mixture with the greatest care, so as to unite the two fluids thoroughly. The vat is situated in an apartment of the manufactory, where the temperature is, by means of a stove, kept constantly at 20 or 22 degrees, and I take care that the liquor be raised to 15 or 16 degrees before the yeast is added to it.

To make the leaven, which must be prepared on the morning of the day in which it is to be used, I form 25 lbs. of rye meal into a paste with molasses, and then dilute the paste with boiling water, to which I gradually add one quart of pure molasses, kneading the mass thoroughly till it is of the consistency of porridge: the heat of it in this state should be 20 or 25 deg. When this leaven is formed for a first operation, a little beer, yeast or leaven of wheat flower, should be added to it.

The bucket is covered over and set into a place sufficiently warm to produce fermentation: the yeast soon begins to swell and rises seven or eight inches in the bucket; at the end of twelve or fourteen hours it is ready for use. The yeast is thrown by small portions at a time into the vat, the liquor in which is stirred during the whole time.

Fermentation commences in the course of two or three hours, and continues two or three days.

The concentration of the liquid is gradually diminished, and at the end of the operation falls to 2 deg.

Those substances foreign to the saccharine principle contained in beets do not ferment, they therefore prevent the degree of concentration from being less than 2 deg.

The next process is that of distillation; the liquor is poured into the boiler of the alembic through a cloth strainer, by which all the meal and bran contained in it are separated; without this precaution, the liquor would often ascend during distillation into the worm.

When distillation is carried on in the improved alembics, the first alcohol which passes marks 36 deg. of the hydrometer; it becomes gradually weaker, till it stands at only 10 or 12 deg; the operation is then arrested. The mixture of the products forms spirit marking from 22 to 25 deg.

The after taste of this spirit is so bitter as to diminish its value in commerce: I have been able to correct this fault by mixing about 2 1-4 lbs. of animal charcoal with the liquor of each boiling; this is 90 gallons: the spirit obtained by this process differs but little from wine-brandy.

I redistil nearly all the spirit over a naked fire, employing for it the same proportion of animal charcoal, and convert it into alcohol of 34 deg.

The sale of the alcohol is more easy and profitable than that of the spirits, as this quality of alcohol is in much request among the manufacturers of colors for dissolving their resins.

I once thought that it would be more advantageous to leach the mass of the beets in order to mix the juice thus obtained with the molasses and to ferment them together, but experience has undeceived me; the juice ferments and the molasses does not then undergo decomposition, it is found in the boiler unchanged. I have found the same results to be produced, when I have mixed the must of grapes with molasses.

200 kilogrammes yield upon distillation about 13 gallons of spirit of 22 deg.: these 13 gallons produce 6 1-2 gallons of alcohol at 34 deg. The expenses of the operation may be calculated thus:

One man, who conducts all the operations and distillation of it in one day, 1 franc 50 centimes.
Ten kilogrammes of rye, 1 " "
Pit coal, 3 " "
Animal charcoal, 0 50 "

Total 6 francs 0

The conversion of this spirit into alcohol of 34° costs as follows:

Day's wages, 1 franc 50 centimes.
Pit coal, 3

Animal charcoal, 0 50

Total, 5 francs 0

From this it appears that the profits are not great, but distillation gives an actual value to molasses which is worth nothing.

ON THE PRODUCTS OF A BEET SUGAR MANUFACTORY.

In the estimate which follows, I have always valued the products at the lowest rate, and the expenses at the highest.

In estimating the value of the products of a sugar manufactory, I will suppose that 10,000 lbs. of beet roots are operated upon each day; however as beets cannot be employed till after they have been carefully trimmed, there is perhaps a loss of one-sixth part of that weight; thus in order actually to work upon 10,000 lbs. of beets, it is necessary to employ 12,000 lbs. so as to allow for this loss.

The products of a sugar manufactory are of two kinds; the first consists of the sugar, the second is furnished by the molasses, the mash, and the trimmings of the beet root.

OF THE PRODUCT IN SUGAR.

The product of the concentrated sirup obtained from 10,000 lbs. of trimmed beets will fill eight moulds, each of which will contain 47 lbs. of good brown sugar; this makes 376 lbs.

The molasses obtained from the moulds furnishes one-sixth as much sugar as is obtained by the first operation, equal to 62 2-3

Total, 438 2-3 lbs.

This quantity of brown sugar will, when refined, produce at least 40-100 of very good double refined sugar; and 15-100 of sugar of an inferior quality obtained from the molasses and sirups; the whole quantity of sugar being 55-100.

According to this, the average quantity obtained by an operation skilfully conducted is,

In sugar of the first quality, 187 lbs.

In sugar of the second quality, 60

Total, 247 lbs.

ON THE SECONDARY PROFITS.

The operations upon 10,000 lbs. of beets per day produce,

In mash 2,511 1-2 lbs.

In molasses about 280

The trimmings of 10,000 lbs. 2,226

ON THE VALUE OF THE PRODUCTS.

84 kilogrammes (187 lbs.) of good refined sugar at 2 francs 5 centimes per kilogramme, 210 francs 0

30 kilogrammes, (60 lbs.) of middling sugar, at 2 francs 25 centimes per kilogramme, 67 50

Total, 277 francs 50

To give a value to the secondary products of the operation upon 10,000 lbs. of beet roots it is necessary to deduce it from the price which they bear in commerce, or from that of the articles, the places of which they supply.

1. I have estimated the weight of the trimmings of 10,000 lbs. of beet roots to be 2,000 lbs.; but these trimmings contain nearly one-half their weight in earth, and are fit only for feeding swine; they will supply the nourishment for 25 or 30 of these animals during the time that the operations upon the beets are continued. The value of the trimmings may be fixed at 2 francs and 50 centimes.

2. The product in mash is far more valuable; this substance forms excellent food for animals, especially horned cattle: cows and sheep that are fed upon it give large quantities of milk.

The mash contains about 65-100 of the nutritive principle of the beets, since only water and about 9-100 of sugar or molasses can be extracted from them.

This article of food does not produce the same evil as dry fodder, which lessens the quantity of milk, and obstructs the intestines of neat cattle, neither does it produce the purging and leanness which are often occasioned by the use of green and watery herbage.

The mash is prepared in winter, and it is at that season that animals experience the greatest need of this kind of food.

One kilogramme of this mash and one quarter of a kilogramme of dry fodder, is more than enough to feed a merino sheep that gives suck.

If the price of the mash is estimated at only 12 francs per 1000 lbs. the value of the mash each day will be 30 francs.

3. As the molasses has no other value than that which it receives from distillation, it can be estimated only by the products of this operation, and as the price of spirit varies greatly, it is impossible to settle it.

Since my establishment was formed, I have sold alcohol of 35 deg. at various prices between 160 and 500 francs per cask.

I do not think that the value of the molasses should be estimated higher than 9 francs for 50 kilogrammes; 10,000 lbs. of beet roots produce 130 kilogrammes; this is then an amount of 12 francs per day.

(To be continued.)

From the Northampton (Mass.) Courier, Aug. 24.

Chinese Mulberry—Although defoliation might injure or destroy some trees and vegetables, the leaves being to the vegetable what lungs and stomach are to animal life, it does not follow that all trees and vegetables suffer alike by defoliation. The grasses, the box, the willow, and some others, may be cut, headed down, or the leaves plucked, almost for an indefinite period, without effecting destruction. Do not old pastures produce better and sweeter grasses by frequent cropping, than when first laid down? Shall it then be thought wonderful that the Chinese *Morus Multicaulis* will bear defoliation several times during the same season? From experiments already made, it appears that this valuable plant has been plucked of its leaves for feeding worms, not less than four or five times, without any injury to its growth—but the leading shoots must not be topped—and every successive crop of leaves are improved in number and weight. At the same time the wood is acquiring hardness for future use. If the object be the formation of

wood, then take off the leading end of the tree or shoot. Another excellency of the Chinese mulberry is the richness of its leaf for feeding worms; while 100 pounds of white mulberry leaves are required to feed worms sufficient to make one bushel of cocoons, 75 to 80 of the *Morus Multicaulis* will do the same thing; and while it is a full day's work to pick 100 lbs. of white mulberry leaves—with the same labor 500 lbs. of the *Morus Multicaulis* might be collected. And while it is generally allowed that it requires about 3000 worms fed on white mulberry to make one bushel of cocoons, the same quantity of cocoons have the present year been made with 2000 worms fed with the Chinese mulberry.

Silk Worms have had an unexampled bad summer. The amount of wet and cold weather has been very prejudicial to their prosperity. They need dry air and a warm temperature, and consequently those who have fed worms this season have been obliged to take every precaution to prevent their dying. Still, more than ordinary numbers have in this way been killed, and the cocoons are unusually defective. Great numbers, we have noticed, in the cocooneries, have begun winding, and after enclosing themselves but slightly with floss silk, have suspended operations and died. The cold has a very pernicious effect. We have noticed the worms various times this summer, when the thermometer was slightly depressed in the morning, lying in a perfect state of stupor, apparently dead. A change in the atmosphere of but few degrees, had the effect to rouse some of them up, and then they would move quick and eat voraciously. There is much both curious and interesting to be found out by attentively noticing the habits and transformations of this mysterious little worm.

American Tuscan.—We were shown a beautiful Bonnet last week, made at Goshen, by Miss W. Cathcart, in imitation of the Tuscan straw. It was manufactured of red top grass, having a lustrous and beautiful polish, and the silk with which the braid was sewed together, was also the result of Miss Cathcart's industry. The materials with which this beautiful article was manufactured, were all raised on her father's farm—and the beauty of it is, the simplicity of the process by which the silk was made. She had only a few worms, and the silk was reeled upon the common domestic reel, twisted upon an ordinary wheel, and wove in a common loom. Now this little simple fact shows, that every farmer's daughter can raise silk, as Miss C. had no experience and but little instruction on the subject.

Palm Leaf Brooms are becoming an extensive article of manufacture. The high price of broom brush, and consequently corn brooms, has set the ingenious ones contriving a little, and they have got up a nice article, made from the palm leaf. They sell from a shilling to twenty-five cents, and are said to be a good article. Three loads from New Hampshire for New York, passed through this town the other day. The old adage is doubly true, that "necessity is the mother of invention."

Mr. Abel Williams, of Ashfield, has invented a machine which he calls the *Potato Cutter*, by which, in three minutes time, a bushel of potatoes, turnips, apples, pumpkins, and other fruit, may be cut sufficiently fine for sheep, cows, and other cattle. The price of the machine is from \$2 to 2.50. It may be seen at the Cattle Show, Oct. 12th, 1836, in this town. We hope some of our mechanics will invent a simple cheap machine for rasping beets, applicable to family use, as we are satisfied it can be done.

Crops in Pennsylvania.—The Mercer (Pa.) Luminary of the 22d inst. remarks as follows:

"Our farmers have finished their grain and hay harvest; with the exception of oats, the greater part of which is also got through with. They have had delightful weather for harvesting—not so warm as to be oppressive, nor so wet as to retard their labor. So far as we learn, there is an average crop of wheat and rye, notwithstanding the appearances in the early part of the season were very unfavorable. There has been more hay cut the present harvest in the county, than during any former year, and all got up in prime order. The same may be said of the oats crop—it is a most abundant one. A very heavy rain which fell last week, has given a fresh start to corn, buckwheat, &c. which also promise very fairly in some parts of the county, but in others they will be deficient. On the whole, our farmers have cause of gratitude to Him who has promised the annual return of "seed time and harvest."

Corn Crop in Pennsylvania.—The York Gazette says:—"The prospect for a most abundant crop of this vegetable is now highly encouraging and will be fully realized, provided it is not nipped by an untimely frost. We have been informed by a person who has seen it, that there is corn growing on Spring Mount Farm, in York township, the property of Mr. Samuel Spangler, on a single stalk of which there are seven ears growing."

Crops in Frederick county.—We understand that the failure of the wheat crops in this county are likely to be in some measure compensated by the luxuriant growth of the corn. We have heard several farmers declare that they have never seen such crops before. In addition to this, the quantity of buckwheat, which has been sowed, and which perfumes the whole air, promises to be some substitute for the loss of wheat. The season has thus far been very favorable to the latter article.—*Fredericktown Herald*.

Cotton Crop of Mississippi.—The Vicksburg (Miss.) Register estimates the present cotton crop of that State at one hundred millions of pounds, and in value at from fifteen to eighteen millions of dollars. The advance of this State in wealth and population, during the last five years, is almost unparalleled. According to the Grand Gulf Advertiser, the last has doubled, while the first has more than quadrupled, during this period. The population of that State is now said to number 328,000 persons.

DURHAM STOCK FOR SALE.

THE Editor of the Farmer and Gardener has for sale, at his residence 2 miles from Baltimore, on the Philadelphia turnpike road, the following full bred improved Short-horn Durham.

Bull B. Illiant, a large sized animal of the Improved Durham short-horn breed. He is white with red spots, and has a thin and most delicate skin of the colour of cream, evidently evincing his superiority for the dairy; he has sired several animals of reputation; one of his calves the last spring weighed 84 1/2 pounds when taken from its dam. He is perfectly docile. His price is \$300. He was got in England, and calved in Frederick county, Md. on the 12th May, 1829. His dam was Matchless, got by Favorite, purchased at the sale of the late R. Colling, a celebrated breeder) son of Favorite, dam by H. Allison's gray bull, sire Orlando, that died on the passage from Liverpool, out of Rosina, from Yorkshire, which bull gained the highest prize premium of 10 sovereigns at a cattle show in Manchester, England.

Until disposed of, this fine bull will stand at the residence of the editor of this paper at \$5 per cow, and as an inducement to those who may have cows reeding his services, the editor will obligate himself to give \$15 for any female calf which may be borne to Brilliant, when 6 week sold, whose dam is a deep milker.

HE HAS ALSO FOR SALE,

That celebrated and beautiful full bred improved short-horn Durham Cow, raised by that distinguished and sagacious breeder John Barney, Esq. which was so admired at the fair last fall. She is of a fashionable roan color, of silky hide and butyracious skin, and as a proof of her goodness as a milker, the editor would remark, that she gives, when fresh with proper treatment, 16 quarts of milk per day.

Besides these fine animals, he has the following on commission for sale, viz.

That thorough bred improved short-horn Durham bull *Superior*—he is a beautiful roan, was bred by Stephen Williams, Esquire, of Massachusetts, and was calved July, 1831.

Superior was got by Frederick, dam Yellow Rose by Young Denton, (963)

g. d. Arabella (imported) by North Star (460)

g. g. d. Aurora, by Comet (155)

g. g. g. d. do by Henry

g. g. g. g. d. by Danby, (949)

Frederick was got by Wye Comet

Dam Tulip by Young Denton (963)

g. d. Tube Rose 2d (imported)

g. g. d. Tube Rose

g. g. g. Tulip Comet (157)

g. g. g. g. d. Cherry by Ladrone.

Arabella and Young Denton were sent out by Samuel Williams, the American banker in London, to his brother in Massachusetts to improve the cattle of this country, and, says our informant, never did a man hit more luckily; for the stock from young Denton have not only proved of fine size and form, but deep milkers.

Superior has two crosses per Denton, and is a very square, compact built animal, straight on the back and legs, broad on the loin and hips, chest deep and broad, short and small in the leg, rather heavy in the head and neck. So far he has proved a sure and good stock getter. \$50 have been refused for his calves by native cows. His price deliverable in Baltimore is \$300.

Also, a Hampshire Down Buck, 7 years old—price \$100—and

A South Down Buck, 1 year old this spring—price \$50.

All letters upon the subject of the purchase of either of these animals, must be post paid. jy 19

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Notice of the retirement of H. Niles from his editorial labors, and of his successor—Work for September—account of a new breed of Sheep—Cotton crop of Mississippi—continuation of Chapal on the Sugar Beet culture, &c.—management of the *Morus Multicaulis*, its superiority, &c.—disasters of Silk Worms—American tuscan bonnets—palm leaf brooms—a potato cutter invented—crops in Pennsylvania—do. in Frederick county, Maryland—prices current, advertisements, &c.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Morning

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs.	6 75	8 00
CORN, yellow,.....	bushel.	95	
White,.....	"	92	94
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	18 1/2	20
Louisiana 19—Alabama	"		21
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.		1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	
Do. do. baker's,.....	"		
Do. do. Superfine,.....	"	9 25	
SuperHow. st. in good de'd	"	9 00	
" " wagon price,.....	"	8 50	8 75
City Mills, extra,.....	"		9 50
Do.	"	9 00	9 50
Susquehanna,.....	"		9 25
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhds.	hhd.		19 50
do. in bbls.	bbl.		4 25
GRASS SEEDS, red Clover,.....	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	2 25	2 75
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.		20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 25	8 50
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"		
OATS,.....	"	43	45
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.		3 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	102	110
Susquehanna,.....	"		
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,....	"	4 50	7 00
" fine red,.....	"	7 00	9 00
" wraperry, suitable	"		
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	2 20	2 33
Red, best,.....	"	2 05	2 15
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	
To Wheeling,.....	"	2 00	
WOOL, Prime & Saxon Fleeces,...	pound.	55 to 63	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.....	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,.....	"	38 40	26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

au 23

41

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	15	16
Shoulders,.... do.....	"	13 1/2	
Middlings,.... do.....	"		13 1/2
Assorted, country,.....	"	11 1/2	12 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,.....	"	20	25
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.		2 00
CHOP RYE,.....	"		1 87
EGGS,.....	dozen.		12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	
No. 2,.....	"	9 50	
Herrings, salted, No. 1,.....	"	3 50	3 62
Mackerel, No. 1, ———— No. 2	"		9 00
No. 3,.....	"		5 00
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virginia 2a 1/2
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	1/2 a	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... do
Farmers' Bank of Mary'd,.....	do	Danville,..... do
Do. payable at Easton,.....	do	Bank of the Valley,..... do
Salisbury,..... 5 per ct. dis.		Branch at Romney,..... 1
Cumberland,..... 1		Do. Charlestown,..... do
Millington,..... do		Do. Leesburg,..... do
DISTRICT.		Wheeling Banks,..... 3
Washington,.....		Ohio Banks, generally 3a 1/2
Georgetown,.....	Banks, 1/2	New Jersey Banks gen. 1 1/2 a 2
Alexandria,.....		New York City,..... 1/2 a
PENNSYLVANIA.		New York State,..... 2 1/2 a 3
Philadelphia,.....	1/2 a	Massachusetts,..... 2a 1/2
Chambersburg,.....	1/2 a	Connecticut,..... 2a 1/2
Gettysburg,.....	do	New Hampshire,..... 2a 1/2
Pittsburg,.....	2a 1/2	Maine,..... 2a 1/2
York,.....	1/2 a	Rhode Island,..... 2a 1/2
Other Pennsylvania Bks. 1 1/2 a 2		North Carolina,..... 3a 1/2
Delaware [under \$5].....	3a 4	South Carolina,..... 3a 1/2
Do. [over \$5].....	2a 1/2	Georgia,..... 3 1/2 a 4
Michigan Banks,.....	5a	New Orleans,..... 6
Canadian do.....	5a	

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

au 23 2t

Light near Pratt st. wharf.

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

A GARDENER WANTED.

A single man of undoubted character for sobriety, industry and honesty, and who has a thorough knowledge of gardening—who is competent to manage a large garden, pleasure ground, and hot house, and to discreetly superintend several hands that would be placed under him—will hear of a permanent situation in the South, where the climate is both healthful and delightful.

Apply to the Editor of the Farmer and Gardener, Baltimore.

All applications by letter must be post-paid.
aug 30

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.
aug 30 Light near Pratt-st. whf.

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

R. SINCLAIR, Jr.
aug 30 Light near Pratt-st. whf.

FARMER'S REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25. THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 20.

BALTIMORE, MD. SEPTEMBER 13, 1836.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, on the west side of Light, near Pratt street, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, SEPT. 13, 1836.

TO OUR SUBSCRIBERS.

To those of our subscribers who have remitted us their subscriptions, we tender our unfeigned thanks:—and to those of them who have forgotten us in their manifold good deeds, we would respectfully say, that we should be highly gratified, if, in calling to mind those good acts which they ought to do, they would be prompted to remit us by mail the amount of their subscriptions respectively. Although the several amounts is but a trifle to each gentleman who may be in arrears to us, the aggregate amount due us, would make us feel comfortable, and place us in a situation to do the cause of agriculture, which we hold dear to our hearts, more justice.

The article on the recent introduction of the *Waterloo Casarean Evergreen Cabbage*, into England, as food for cattle, which will be found in this day's paper, we copy from the September number of the Horticultural Register and Gardener's Magazine, an excellent work published in Boston.

We have a few hundred of these plants growing at our little establishment; but as the season has been inauspicious, and they have not had a fair chance for luxuriant growth, we cannot say what may be the result of our experiment. We obtained the seed of Robt. Sinclair, jr. at \$5 a pound, those in England are, or were, held at \$5 for 20 seed. The next season we shall take time by the forelock, and give the article a more fair and perfect trial. If it should prove by proper test to realize a moiety of what has been said of it, it will certainly produce a new era in agricultural pursuits; but as the venders of the seed of new things, are not always the most scrupulous in pronouncing their eulogies on their virtues, time and actual cultivation are necessary in order that their capacities may be properly demonstrated.

In the more southern portions of our country, if this cabbage should prove as valuable as some of its encomiasts have stated it to be, it will, indeed, be a blessing. But of its properties after we have had time to form a correct practical opinion, we shall speak more fully.

CORN—The cold weather of the past summer and spring, it is known, prevented the growth of the Indian Corn so much as to interfere greatly with the harvest of that important grain. Aware of the effects of short seasons on summer grains, Mr. E. J. Pierce, who has a delightful farm near Germantown, procured a quantity of seed corn from the northern part of New Hampshire, where the summers are about the shortest of any part of our country. This corn was planted on the first day of June, and on the first day of September, that is, on Thursday last, it was harvested. We have now before us two ears from Mr. P's field; they are full of large grains; and we understand that the eight acres planted by Mr. P. with this seed will produce nearly 400 bushels. Does it not concern our farmers, generally, to provide themselves with a quantity of such seed, in order that they may be prepared against the effects of such a summer as the past upon their corn-fields?—*U. S. Gaz.*

Note by the editor of the Farmer & Gardener.

We procured Northern corn for our planting. The first patch, about two acres, we planted on the 14th May; it came up just before the cold and long continued rain which commenced on the 24th of that month, and did not terminate for several weeks; it has been subsequently subjected to alternations of scorching droughts and rains, and preserved, through all the disadvantages of the season, a healthful appearance. On the 20th of August eight cattle broke in upon it and consumed, and broke off a large number of the ears. Those which were broken off on examination we found to be perfectly matured.

A patent has been taken out in England for tanning with blackberry bushes instead of oak bark.

THE OSAGE ORANGE.

We subjoin from the American Gardener's Magazine a communication of great interest on the use of the Osage Orange (*Maclura Aurantiaca*) as food for silk worms. It is from the pen of one of the most distinguished agriculturists of Virginia, whose able communications, connect-

ed with the pursuits of husbandry, and of horticulture, have often adorned the various journals of our country devoted to these pursuits. His suggestions with regard to the culture of this valuable plant and its adaptation to live fences are peculiarly interesting, and should elicit every attention.

On the use of the Osage Orange (Maclura aurantiaca,) as Food for Silk-worms. By T. S. P., Beaver-dam, Va.

Some months ago, the Farmers' Register contained a translation of an interesting article by M. Bonafons, giving the result of an experiment on feeding the silk-worm on the leaves of the *Maclura*. Although the authority of that gentleman may be regarded as decisive on any matter connected with the culture of silk, yet, as many of the substitutes for the mulberry have been successively used and discarded, it was reasonable to suppose the *maclura* might share the same fate. On trial, however, I find it to answer all the purposes for which M. Bonafons recommended it; and as the silk business is becoming an important branch of the United States, I am induced to detail, in corroboration thereof, the result of my own experiment.

In the month of May I had a few thousand eggs to hatch, and, during the three first ages, the worms were fed exclusively on the leaves of the *maclura*. At the commencement of the 4th age they were divided into several parcels, with a view of giving to each a separate kind of food. About one third were continued on the same—the native mulberry was given to an equal number—a portion of the balance was fed on the *maclura* and Chinese mulberry indiscriminately—and the remainder on the Chinese mulberry alone. During the process, I could not perceive that the worms manifested any partiality between the leaves of the *maclura* and those of the Chinese mulberry,—if they evinced any, it was certainly not in favor of the latter. But they greatly preferred either to the leaves of the red mulberry, some of which I would occasionally lay on the shelves, where they would suffer them to remain until compelled by hunger to eat them. On the contrary, when those which had the red mulberry leaves assigned them, were furnished with a few of the *maclura*, they would collect around the latter, and devour them with avidity, before they would begin to feed on their accustomed diet.

The relative value, however, of the *maclura* and Chinese mulberry, for the production of silk, was only to be fully determined after the formation of the cocoons. It may be recollected by those who read the article of Mr. Bonafons, that he regarded the *maclura* as chiefly valuable for feeding the worms during their early ages; that subsequently they should be supplied with the

mulberry, their natural food; and that, though the former would produce silk of a fair quality, yet it would be inferior, and in diminished quantity, compared with the product of the mulberry. I find this to be true as it regards the maclura and Chinese mulberry—so far, at least, as respects the size of the cocoon; but the maclura is at least of equal value with the red or native mulberry. The worms fed on the Chinese mulberry spun cocoons weighing from 30 to 45 grains;—those raised on the maclura and Chinese mulberry combined made their balls somewhat lighter on the average,—while the weight of those obtained from the maclura and red mulberry respectively was about equal, and still less than either of the preceding. The quality of the thread for manufacturing purposes I am unable to pronounce upon, not having yet submitted specimens to a competent judge. The cocoons were nearly all of a pale straw color.

If the value of the maclura consisted in furnishing food for the silk-worm, it might, from its extreme hardness, and consequent exemption from late spring frosts, be deemed well worthy of planting; but when to this, other important uses to which it may be applied are superadded, it appears to present irresistible claims to the notice of the farmer and horticulturist. I may therefore be excused for dwelling more at large on its merits, which have as yet scarcely begun to be appreciated, or even known.

In many parts of the United States, the scarcity of timber has for many years been sensibly felt; notwithstanding which, our forests still continue to disappear. To mitigate the evils of this alarming destruction, efforts have frequently been made to substitute live for dead fences; but it is believed that hedges have not, to any considerable extent, answered the purposes of an enclosure. After all the trouble and expense that have been bestowed upon them, they have, in most instances, finally dwindled away and been rooted out. Hence it may be inferred, that the plants used in their construction have been too feeble in their constitution, and therefore incapable of attaining the necessary size and development. Now it has been confidently asserted, that the maclura will make a most substantial and impervious hedge—a fact which cannot well be doubted by any person who will take the trouble to examine its manner of growth. The branches are thickly set, and the lateral ones almost uniformly take a horizontal direction: they are, moreover, armed with a number of sharp and very rigid spines which do not disappear, as has been stated, after 1 or 2 years, but remain permanently. The plants grow with such vigor, that it would only require a few years, under careful treatment, to rear an excellent hedge from the seed. To those who are fond of the ornamental it may be also recommended for the extreme lustre of its foliage and the magnificence of its fruit.

Hitherto the means of propagating the maclura have been rather limited. It grows but indifferently from cuttings, and not with certainty from slips of the roots. The only mode which can be depended on for extensive increase, is by the seed. These have not often been perfected on this side of the Mississippi, owing partly

to the small number of trees which gentlemen have introduced into their grounds; and also to inattention to the fact that they are diœcious.—With a knowledge of this characteristic, there is no difficulty in having them to bear abundantly. There is one growing in my garden, now 7 or 8 years old, which has matured its fruit for a year or two past, and which would have borne considerably earlier, had not the staminate plant perished which was ordered with it. The one which was subsequently obtained was feeble in its growth, and slow in flowering. Last year the number of seeds it ripened amounted to many thousands. These readily vegetated in the spring, and the seedlings are now growing in nursery rows, as finely as could be desired.

I regret that I have not been able to compress my remarks into a smaller space; but, before concluding, I will take the liberty to suggest, to some of our enterprising seedsmen, the propriety of obtaining a parcel of the seed of the maclura from its native forests. They may be gathered in any quantity on the Red River, and in the contiguous parts of Arkansas. It is the practice now to compass sea and land to discover a new vegetable for our tables, or a flower for the paterre; and while the seeds of these productions meet with a ready sale, in consequence of the increased taste for horticultural pursuits, it is not to be doubted that a considerable demand will also be found for those of a plant, which combines, in an eminent degree, the useful with the ornamental. Yours,

T. S. P.

Beaverdam, Va. 7th mo. 1836.

PEDIGREE OF DURHAM BULL OLIVER—CROPS OF KENTUCKY.

We have received the following letter from an esteemed correspondent in Kentucky, and insert it with pleasure.

For the Farmer and Gardener.

Colbyville, Clarke Co., Ky. Aug. 30th, 1836.

SIR:—I discover that I have made a mistake in the pedigree of Oliver, the sire of Rifleman. Mr. Powell's imported cow Delight, is the gr. d.—his pedigree should read: Oliver bred by Col. John Hare Powell, was got by Memnon, (see herd book, 1223) his dam Garcia bred by Col. Powell, by his imported bull Malcolm, (1190) his gr. d. Col. Powell's imported cow Delight. See Col. Powell's sale book for 1830, No. 12, referred to herd book for 1829, for her pedigree, where you will find that Delight was bred by Mr. Simpson, (England) and was got by Lancaster, her dam Drusilla bred by Mr. Simpson, by Ketton (346) gr. d. Red Raynes, bred by Mr. Raynes, by Neswich, (453) gr. gr. d. by Captain, (108).

Our crop of wheat was a tolerably good one, our oats very good; rye, generally not the fourth part of a crop, and corn variable, in some neighborhoods very good, and in others very indifferent. I think altogether, in the county of Clarke, there will not be more than half a crop made. We had very wet weather in May and part of June, and then near a month of dry weather, and when it did rain it was in detached places.

Your friend,

SAML. D. MARTIN.

SPIDER SILK.—It is said that M. Bon, a French gentleman, on one occasion, for an experiment, collected about twelve or thirteen ounces of the bags or balls of short-legged spiders, and after causing the dust to be beaten out of them he washed them clean—steeped them in soap, salt-petre, and gum arabic, boiling them in this preparation for a few hours. He then dried and carded them—thus obtaining a beautiful silk of an ash color. M. Bon had stockings and gloves made of this material which he presented to the French Academy, and the English Royal Society. After some further experiments, he was of opinion the spiders yielded more silk in proportion than the common silk worm.

MANURE IS WEALTH.—In our intercourse with some of the farmers residing within forty or fifty miles from New York, on Long Island, we have been surprised at the instances related to us of the profitableness of farming. Some farmers, known to have labored and toiled hard, have continued yearly to fall in arrears until they have commenced buying manure. Fifty-six cents are given per carmen load at the landing from the apparently worthless dirt swept from the streets. This applied at the rate of twenty loads to the acre, produces wealth. The very farmers who could not obtain a living by using only manure made on their farms, have in a very few years, not only freed their farms from incumbrances, but purchased others in addition, and are now from the yearly profits of their farms putting money out at interest. If then it is so profitable to buy manure, and be at the various expenses attending carting, how very important it is to give special attention to increasing the quantity and improving the quality of that made on the farm. There is no question but that almost every farmer can double the quantity of his domestic or yard manure without scarcely any additional expense. It is thought too, that at least fifty per cent of the nutritive properties of yard manure, are lost by drenching rains, excessive fermentations and injudicious application to the soil. The more we consider this subject, the greater does it become in importance, and justly regarded as the primary object in farming.—*New Eng. Farmer.*

A NOBLE ANIMAL.—In England lately, a horse being in danger of drowning from being exhausted and in deep water, was rescued by another horse standing on the beach, with harness on, who had been attentively surveying the scene, plunged into the water, and made after his friend in distress, whom he soon overtook, and applied his mouth to the affrighted animal's ears, apparently attempting to push his head round towards the shore; he then turned about, neighing loudly to encourage his companion, when the latter also turned and followed his gallant leader to the beach, where they both arrived in safety.

New silk loom.—It is said that steam power may be applied with the greatest advantage to the weaving of silk. A new loom has been constructed in England on this principle, by which, it is said, that one girl can weave as much in a day as two men by the common process. The work is also executed with great precision.

[From the Baltimore Chronicle.]

IMPORTANT CONVENTION OF TOBACCO PLANTERS.

We published some time since, a notice for a Convention of the Tobacco Planters of this state, to take into consideration the present system of tobacco inspection. In pursuance of this notice, delegates were appointed from the counties of Calvert, Anne Arundel, and Prince George's.—They met at Upper Marlborough, on the 22d inst. and organized by appointing JOHN CLAYTON, Esq. of Anne Arundel, President, and BENJAMIN WATKINS, Esq. of Anne Arundel, and JOHN HODGES, Esq. of Prince George's, Secretaries.

A committee was appointed to consider the subjects before them—who made a report, which was adopted. The three most important resolutions reported are as follows :

Resolved, That we regard the existing laws of this State, imposing restrictions on the transportation of Tobacco from the State to the ports of any other State, and subjecting the producer to the tax of an inspection here, as subversive of the rights and interests of the Tobacco Planters of this State, and opposed in the letter and spirit to those principles of free trade and unrestrained commerce among the several States, which are secured to them by the constitution of the United States.

Resolved, That we regard the unrestricted privilege of shipping our Tobacco to the ports of Philadelphia, New York, Boston, and Alexandria, or to any other port within the United States, to be offered for sale there, as of the utmost importance to our agricultural prosperity; because the more rival markets we have, the greater will be the demand, and the more enlarged the competition; and where there is both demand and competition, the market value of our productions must be enhanced in proportion to their extent.

Resolved, That in the opinion of this Convention, the erection and establishment of the "State Warehouses for the inspection of Tobacco, in the city of Baltimore," have produced injurious consequences to the planting interest throughout the State; because we believe they have been the means of drawing to the city of Baltimore nearly all, or at all events a very great proportion of the Tobacco in the State, thereby constituting her what she was not before, the only Tobacco market in the State, by means of which she has been enabled to monopolize the whole trade—and we hold it to be perfectly clear, that where there is a monopoly, there can be no competition, and consequently none of those elements which give life and energy to commercial enterprise.

The fourth resolution looks to Legislative action, and proposes that a memorial be presented to the next Legislature in favor of the views of the Convention; and the fifth instructs the members of the Legislature from the counties represented in the Convention, to support a bill carrying them into operation.

Resolutions were also passed recommending that the planters should in no instance employ an agent to sell their tobacco who was also an agent for the purchase of it. They also declare

"that the proceedings of the convention have originated in no motive of hostility to the city of Baltimore, the great commercial capital of our state, but purely from the principle of protection and self-preservation."

The convention recommends that delegates should be appointed by the States of Ohio, Kentucky, Virginia and Maryland, to meet in Washington on the first Monday of January, 1837, to deliberate upon and suggest such measures as they may deem expedient in relation to the proper means to be taken by the General Government, to obtain from foreign governments a reduction of duty on the tobacco imported into their ports.

The subjects treated of by this convention are deeply interesting to Baltimore, and will not fail to attract the attention of all who are engaged in the tobacco trade.

[From the New-York Cultivator.]

THE CROPS.

In a recent excursion to the western borders of the state, we took much pains to ascertain, from the best sources, the probable average of the wheat crop. The result of these inquiries is a conviction, that west of Cayuga Lake, the product does not exceed half a fair average crop; that in Cayuga and Onondaga, the proportion diminishes to a third—and that in Oneida it will not be one quarter of the quantity required for the population of the county. Those counties embrace the great wheat district of our state.—The causes of failure have been, a snowy winter, which smothered much of the grain, a wet spring, the hessian fly, and lastly, we suspect to some extent, the grain-worm. This insect has been detected about Geneva and Ithaca, and we doubt not it has tended to diminish the product east of those places, as the farmers, not being sensible that the enemy was among them, omitted to look for it in their wheat fields till it had fallen and burrowed in the ground. The two first enumerated causes seem, however, principally to have operated to lessen the crop, and particularly the wet spring.

The corn crop seems diminutive in quantity, inferior in quality, and unpromising in product. An early frost would cause an almost total failure of a sound crop. We would repeat our advice, to harvest this crop as soon as the mass of the ears are glazed, as a means of making most both of the corn and the fodder.

We remarked, that both the wheat and the corn crops looked best where the surface was most undulating and hilly, and better towards the heads than near the outlets of the small lakes. The cause of this is apparent. The heavy rains of May and June completely saturated the soil; so that where it was stiff, or reposed upon a tenacious subsoil, and the surface flat or but slightly sloping, the ground became virtually a concealed marsh, producing deleterious effects upon the wheat, and preventing the early working of the corn ground. We are persuaded, from its beneficial effects in our own grounds, that had a thorough system of under-draining been previously adopted upon many farms we saw, the expense of draining would have been nearly made up to the proprietors in the increased products of the past season. Al-

though it may seem paradoxical, we are persuaded, and will hereafter endeavor to show, that under-draining, by rendering the soil more pervious to atmospheric and solar influences, is alike calculated to counteract the effects of drought and habitual wetness.

The potatoe crop was suffering there, as here, from drought. The tubers were small, and the hopes of an abundant crop were diminishing.—Peas, oats and grass were abundant and heavy. Buckwheat looked well, though apprehensions were entertained that it would suffer from early frost and the dry weather. Slight frosts had been already experienced in some districts. In Seneca and Tompkins counties, large quantities of flax were being cut with the cradle or scythe, cultivated principally for the seed.

A correspondent near Trenton, N. J. writes thus:

"I yesterday had the product of ten acres of wheat threshed, and obtained 60 bushels. In an adjoining field of about equal fertility, I last year had at the rate of 22 bushels the acre. Sixteen acres of rye averages about two bushels the acre, and is much better than some of my neighbors. One of them sowed ten bushels of wheat on good ground, and obtained but five bushels. The snow and the fly together destroyed our prospects of winter grain. Oats are good. My crop yielded 40 bushels the acre. Maize, where the first planting stood well, is setting an unusual number of ears; but the season has been so cold and damp, that they seem likely to be small, and if early frosts should come the crop will generally be light."

From a review of the information from all the states bordering on the Atlantic, it is very evident, that the crops of bread-corn are uncommonly deficient; the prices must consequently be high, and that but for the probability of our receiving heavy importations of grain from Europe, the prospect of a scarcity would be alarming. With these prospects before us, it becomes a matter of duty, as well as of interest, to husband well our means, and to endeavor, by prudence and economy, to avert the evils which threaten, at least the indigent classes of our population, the coming winter.

[From the same.]

CHESS, OR CHEAT.

We received, the same day, from W. R. Cahoon, of Dover, Del. and from Ed. Wilbur, of Pittsford, N. Y. inquiries as to the origin and character of chess—whether it is a distinct species of plant, produced only from its kind, or a diseased, imperfect wheat. This has been a long controverted question; and although it has been well settled, in the minds of those who have become partizans in the controversy, it has so happened, that the opinions have been equally confident upon both sides! It would be presumption in us to assume the office of umpire, as we have made no special observation or experiments with a view to solve the question; but as we feel called upon to respond to the inquiry in some way, we will offer a few considerations which, at present, incline us to the opinion, that wheat is transformed into chess, or rather that chess is diseased wheat—without intending,

however, to be drawn into further controversy in the matter.

Naturalists class wheat under the genus *tritium*, and chess under that of *bromus*; and they contend, what we are not prepared to deny, that one genus or species of plants, never assumes, from disease or malformation, the character of another genus or species of plants; and that hence wheat cannot generate chess. On the other hand, there are many practical farmers, and some of them philosophers too, who insist that wheat is mutable, and liable to change into chess; that chess does grow, with wheat, where no chess has been sown, and where none existed in the soil; that where the soil is clean, and the seed pure, chess is not found in other farm crops, and that hence chess must be degenerate wheat, capable of germination and reproduction. One or two things is implied in the latter opinion—either that naturalists have erred in classing chess with the family *bromus*, and in considering it a species, or that there are exceptions to general laws in vegetable physiology. We will not pretend to discuss these points, but proceed to state, in a brief manner, some facts, which we can account for in no other way, than by adopting the opinion we have expressed.

1. In wheat fields, chess most abounds where the wheat is in the most unhealthy condition—most in those spots where the wheat, for want of due pulverization of the soil, or from wetness, is most thin and sickly, and least where the soil is mellow and dry, and the crop most thick and healthy. If chess originated only from chess, it would be equally distributed; and would not particularly, and sometimes almost exclusively abound, where the ground has been but partially tilled, as upon the margin of the field, about stumps, and in low damp places. When chess is found in other crops, as it often is, being sown with the seed, it shows itself alike in every part of the field.

2. Upon a farm belonging to us, and occupied by a tenant, eight or ten acres of fallow were sown with select pure seed. The product was about 80 bushels of chess, and less than half that quantity of wheat. The soil was adapted to wheat, and believed to be perfectly clean.

3. In the Farmer's Register for January, of the current year, Thomas C. Nelson states, that a wheat field belonging to him, self-sown, in consequence of the crop having been destroyed by a hail-storm, just before harvest, and not subsequently ploughed, which looked well in February, turned out to be "all chess," and gave him more of this commodity, upon three acres, than he had had upon his farm in the preceding 38 years.

4. The same number of the Register contains a letter from N. Burwell, to the editor, accompanied by a root bearing apparently wheat and chess.

5. In the same work for November last, we find a letter from G. W. Featherstonhaugh, stating that he had in his possession, a plant containing four stalks and heads of chess, with the skin of a kernel of wheat, so attached to the root, as to satisfy him and others, and among them, the late President Madison, who examined it, that in this particular instance a kernel of

wheat had produced a plant bearing heads of cheat.

It is needless to multiply facts of this kind, hundreds of which might be quoted; and yet we are aware that they are not all permitted to outweigh the authority of a well settled principle of natural law. With these remarks we must leave the mooted point where we found it—involvement with difficulty on both sides.

CULTURE OF WHEAT—PREVENTION OF THE FLY.

The subjoined communication, which we copy with great pleasure, contains most wholesome advice, and although addressed chiefly to the farmers of the Valley of Virginia, is equally as applicable to every other section of our country where wheat is grown.

We approve of every portion of it except that which recommends a lixivium or soak to be made of "*black manure water from the reservoirs from our stable yards.*" This we consider would be no more effective in the destruction of the "nits or eggs" which the fly "*deposits on the apex or tip of the grain of wheat,*" than so much pure spring water, because from the great admixture of rain water with all such bodies, the saline matter contained in the urine of animals would be too much diluted to exert any other power than that of imparting to the grain a spring to germination. To be sure it is recommended to stir the seed well with a broom, which would if soaked, even in the purest water of brooks, springs, or streams, measurably release the egg from its place of deposit; but when so much is at stake—when the success of culture in one of the greatest staples of the country is concerned, we maintain that the *minor* agent should not be, when the *major* can be employed with equal facility. The egg, thus deposited, there is no doubt could be released by immersion in any thing, if long enough continued; but the question arises in our mind, if it should be detached by any substance not calculated to destroy its powers of after-vitality, whether any great good would be effected.

From the Virginian.

Brother Farmers:—I wish to talk with you a little, not about our next president, but what infinitely more concerns us—about our next crop of wheat.

That the late seasons have been very unfavorable, is true. That we have been deprived of the fruits of our labor by a destructive insect, is also true: but to say that our soil, *the valley of Virginia*, is no longer to be considered as capable of producing wheat, is a slander, which I trust experience and future crops will contradict and refute. Let not our late disappointments, though great, depress us to the listlessness of hopeless indolence—but rather rouse us to in-

creased industry, with the lively expectation of reward; let us manfully perform our part, sow again in hope, and trust in heaven.

The fly, our late severe scourge, will cease to be an object of apprehension and dread; we shall become acquainted with its history and habits, and be able, I trust, to prevent its depredations. The various opinions, entertained about the propagation of this formidable and destructive insect, I shall neither enumerate nor discuss: one opinion, only, and that of fifty years continuance, I may venture to mention, viz: that the fly deposits its nits or eggs on the apex or tip of the grain of wheat, and that from its first appearance in ear, till it be fully ripened and cut down.—These nits or eggs, with the help of a microscope, I discovered many years ago, and pointed them out to some of my good neighbors, who were able with the eye alone, to detect them, as little dark brownish specks or dots, on the summit of the grains of wheat.

A certain degree of moisture and warmth, when the wheat begins to vegetate in the ground, either in the fall or spring, brings these eggs or nits to life as small worms or maggots, in which state they destroy our crops. After this the worm gradually assumes the aurelia or flaxseed form, becomes a small, peculiarly shaped fly, and then, according to the great law of its nature, after sporting a while in all the spirit and merriment of nuptial frolic, deposits its eggs, and thus provides for the continuance of its progeny.

In the month of June last, thousands and thousands of these flies, newly excluded from their flaxseed state, were seen, and attentively observed, skipping and dancing, as in triumph, through the little they had left of our fields of wheat, and more than twenty of them settling at once on the same ear—a pretty strong corroborant, you will allow, of that opinion which I have so long and invariably entertained.

Now, supposing the above opinion, and the late observations to be correct, what remains to be done on our part? What but to break up these nests of eggs, prevent them from hatching, from becoming maggots or worms, and in this state destroying our valuable crops of wheat?

To do this, I advise to prepare a lixivium, or soak, of strong soap-suds, lye of wood ashes, or black manure water from the reservoirs of our stable yards, singly or combined; and to make it of a moderate or tepid warmth, the more effectually to loosen and dissolve the animal gluten or viscous matter that makes the eggs adhere to the grain of wheat. In this bath or soak keep the wheat ten, twelve, or twenty-four hours.—When the seed wheat has been in the soak ten or twelve hours, take a corn or hickory broom and stir the wheat well, in order to rub off, if possible, the eggs or nits; after some hours more, stir and rub again, then dry with fine wood ashes and slacked lime well mixed, and sow. It does not appear to me that wheat treated in this manner would sustain any injury if left to remain unsowed for a day or two, and perhaps longer, if care be taken to prevent its heating.

I conclude at present with recommending a very simple implement of husbandry, too rarely to be seen amongst us, but very useful in the raising of great crops, both of grass and grain. I mean a hollow wooden roller, so constructed

and framed, as occasionally to be diminished or increased in weight. Had such an implement as this, preceded by a light harrow, been used on our crops last fall or spring, when they began to exhibit the first indications of fly, to look sickly and decay, we might at least have made saving crops, and not as now, had occasion to lament a total failure. The roots of the wheat would have been refreshed and renewed by the harrow—the injury from too long dry weather in May, obviated—the fly, in its worm and tender state, crushed, demolished, and no further injury sustained.

To encourage us in the practice of soaking, before the sowing of our wheat, I subjoin a very interesting experiment by a correspondent of the "Bath Agricultural Society," in England.

"The last spring, being remarkably dry, I soaked my seed barley in the black-water taken from a reservoir, the draining of my dung-heap and stables. As the light grain floated on the top I skimmed it off, and let the rest stand 24 hours. On taking it from the water I mixed the seed grain with sifted wood ashes, to make it spread regularly, and sowed three fields with it. The produce was sixty bushels per acre, of good clean barley. No person had better grain. I sowed some of the seed dry on part of the same fields, but the crop, like that of my neighbors, was very poor, not more than twenty bushels per acre, and much mixed with weeds and small light grain."

A FARMER.

[From Chaptal's Agricultural Chemistry.]

ON THE CULTIVATION OF THE BEET ROOT, AND
THE EXTRACTION OF SUGAR FROM IT.
(Concluded.)

TABLE OF THE PRODUCTS OF THE OPERATION
UPON 10,000 LBS. OF BEET ROOTS PER DAY.

Nature of the products.	Weight.	Value.
1. Refin'd sugar, { 1st. qual.	84 kilogrammes	210 frs. 0c.
{ 2d. qual.	30	67 " 50
2. Trimmings	1,000	2 " 50
3. Mash	1,250	50
4. Molasses	130	12
Total	2,494 kilogrammes.	322 frs.

While enumerating the products of beets, I have neglected one, which is however of some importance; it is the leaves. As soon as the middle of August, the leaves may be trimmed off to feed animals; at the season of digging, an immense number of cows and sheep may be fed for 8 or 10 days upon the leaves and necks that are cut off and thrown upon the ground.

ON THE EXPENSE OF A BEET SUGAR MANUFACTORY.

It is not enough to estimate the products of a sugar manufactory, in order to know whether the business can be carried on to advantage; a valuation of the expenses must likewise be made: in this, as in the foregoing part of my statement, I shall give only the results of my own experience.

The expense of the necessary accommodations and utensils required for operating daily upon 10,000 lbs. of beet roots cannot be defrayed with less than 20,000 francs.

If a permanent stream of water and a wine-press can be made use of, the expense may be reduced to 16,000 francs.

I do not include buildings, since such as are necessary for this manufacture are to be found almost every where.

1. The principal article in the expenses of a manufactory of this kind is the cultivation of the beets. Estimating the price of 1,000 lbs. at ten francs, is placing it at a rate by which the manufacturer will escape injury.

Thus, 12,000 lbs. of root being made use of each day in order that 10,000 lbs. may be prepared for the rasp, the cost will be 120 francs.

2. The trimming of 12,000 lbs. at the rate of 60 centimes per 1,000 lbs. of trimmings,	7	20 c.
3. The wages of 3 women employed to tend the rasps, carry the beets, &c. reckoned at 60 centimes per day,	4	80
4. Hire of man and 2 horses for the establishment,	7	25
5. Two men for the presses,	2	50
6. Inspector to the rasps and presses,	1	50
7. Two men at the boilers,	2	50
8. 50 kilogrammes per day of animal charcoal,	13	
9. Value of coal consumed,	25	
10. Salary of the head refiner,	5	
11. Salary of a second refiner,	2	25
12. Lighting of the building,	1	50

Total, 192 frs. 50c.

This list comprises only the expenses of a day's labor; if the operations should be continued 100 days, the expenses would amount to 19,250 francs.

When the preparation of the juice and the manufacturing of the brown sugar are completed, all the work people, excepting the two refiners are dismissed; these are enough for carrying on the operation of refining. The expenses attendant upon this last operation, which continues till autumn, are as follows:

1. Wages of the head refiner,	1,000 francs.
2. Wages of the second refiner,	500
3. Wages of a laborer,	250
4. For animal charcoal,	300
5. For pit coal,	700
6. For white of eggs, and clay,	150

Total, 2,900 francs.

To these expenses must be added the following:

1. Interest of the funds employed in furnishing the manufactory,	1,200 francs.
2. For repairing and replacing utensils of all sorts,	1,500
3. For purchasing bags, strainers, and other small matters,	700
	3,400 francs.

Thus the actual amount of expenses of all kinds attendant upon working 1,200,000 lbs. of beets, amounts to 25,550 francs.

I have already proved the product per day to be 322 francs; this would give, for one hundred days of effective labor, 32,200

This allows to the manufactory a profit of 6,650 francs.

The calculations are exact, and deduced from the results of a well conducted process. A variation from them can only be produced by local situations. But experienced agriculturists will perceive, that I have placed certain expenses at the highest rate, while some of the receipts are estimated at the lowest. There are but few sections of France, where pit coal is as dear as it is in Touraine, where my establishment is situated.—There would be, almost every where else, a considerable saving in this article. I have rated the value of the mash only at 12 francs per 1,000 pounds, although it is very nearly as valuable for feeding animals as an equal weight of dry fodder. I have estimated the price of the roots at 10 frs. per 1,000; but this is more than they would cost a landlord, especially if he should sow corn immediately after the beets are dug. I have set no price on the leaves of the beets, and yet these will furnish food for the animals of the farm from the middle of August till the end of October.

But, whatever profits this manufacture is capable of affording, it must always be remembered that a want of skill in the operations, or negligence in the preservation of the roots, must occasion some losses in an undertaking, which, even at the low price at which I have estimated sugar, promises sufficient remuneration in the hands of an intelligent man.

GENERAL CONSIDERATIONS.

From 12 years experience I have learned, in the first place, that the sugar extracted from beets differs from that of the sugar-cane neither in color, taste, nor crystallization: and, in the second place, that the manufacture of this kind of sugar can compete advantageously with that of the sugar-cane, when the price of this last is in commerce one franc and twenty centimes per demi-kilogramme.

These facts being established and acknowledged, it may be asked whether the manufacture of beet sugar would be advantageous to agriculture.

The cultivation of beets will not prevent the production of a single kernel of wheat, since this may be made an intermediate crop, and the sowing of it commenced as soon as the beets shall be dug. The crops of corn are better upon these lands than upon others, because the beets have divided and loosened the earth, and the weeding have cleared it of strange plants.

The operations upon 10,000 pounds of beets per day, place at the disposal of an agriculturist, about 1,250 kilogrammes of mash, which is the best kind of food for horned cattle.

The working of the beets being performed in winter, furnishes employment to the men and cattle of a farm, at a season when they are too often condemned to idleness.

Finally, if the manufacture of sugar from beets should be carried to such an extent as to furnish a supply for all France, agriculture would receive from it the value of more than 80,000,000 francs per annum.

The prosperity of an establishment of this kind, depends upon its being connected with rural labors. This kind of manufactory is out of place in town, because buying beets is much

more expensive than raising them, the mash cannot be rendered productive, labor and fuel are more expensive, and there is not, as upon a farm, a supply of labour both of men and animals.

But can this manufacture be reconciled with the interests of our colonies?

Before the revolution, this would have been a difficult question to answer. Then, our colonies not only supplied our own wants, but furnished an overplus worth about 80,000,000, which we exported to foreign countries, particularly to those of the north of Europe. From these we received in exchange timber, iron, copper, hemp, tallow, tar, &c. The loss of our principal colonies has caused this important trade to pass into other hands, and those colonies that remain to us do not furnish sugar enough for the consumption of our own country.

The government has, at this time, two ends to attain, one of which is, the advancing of the welfare of our colonies, and the other, the encouragement of the manufacture of beet sugar. Both would be accomplished by prohibiting the importation of foreign sugars. When this is done, the sugar of our colonies will find an advantageous market, and the manufactories of beet sugar will increase in number.

Supposing the wants of France should be supplied by the sugar from beets,—could we not then resume our commerce with foreign nations, by means of our colonial sugar? France would, at the same time, be safe from the danger of privation, and from those variations in price which are produced by a maritime war.

It is a fact, that if the government do not interest itself seriously in this important subject, neither the colonies nor the manufactories will ever acquire a great degree of prosperity; and one of the finest discoveries of modern times will be lost to France.

HORTICULTURAL EXHIBITION.

The committee of arrangement of the Horticultural Society have great pleasure in announcing to the public that they intend giving a splendid Exhibition of Flowers, Fruits and Vegetables, at the Saloon of the Assembly Rooms, Holliday street, on Wednesday and Thursday the 28th and 29th of the present month.

The committee are using every endeavour to make this Exhibition one of uncommon interest, and they respectfully solicit from amateurs and Gardeners the various products of their successful cultivation.

The premiums awarded at the last anniversary meeting of the Society are now prepared and will be presented to the respective competitors.

The Exhibition will open at 11 o'clock A. M. and continue until 10 P. M. Admittance 25 cents.

By order of the Committee of Arrangement.
T. EDMONDSON, Jr. Chairman.

MARYLAND HORTICULTURAL SOCIETY.

August 20—The following articles were exhibited:

Samuel Feast—Eugenia Sambos and several varieties of roses, viz. Kurtzii, Queen of Roses, &c.

Edward Kurtz—Eight varieties of zinnia elegans.

Henry Moore, of Aisquith street—A fine double seedling althea.

Robert Sinclair, sen.—The following dahlias: Queen of Dahlias, Foster's incomparable, Belladonna, Negroboy, Brewer's Paragon.

Henry Moore, Aisquith st.—A parcel of very superior pears, raised from seed by him, called the Moore pear; also the prune plum, of very rich flavor; Moore's ne plus ultra, a yellow plum of large size and remarkably fine flavor; Magdalen plum and Oeola plum, all seedlings of his; the green gage and malchess.

Mrs. Robert Taylor—3 very fine blue plums.

Richd. Valentine—A specimen of pears, plums and figs.

August 27th—Dr. Edmondson—Gardenia amonea, dahlia, Barret's Susannah; a beautiful dwarf variety and seeds of the erythrusia cristigalli.

Edward Kurtz—Gladiolus natalensis; amaryllis purpurea, a fine specimen, and agrippina dahlia.

Robert Sinclair, sen.—The following dahlias—Alice Grey, Widnaw Village Maid, Negro Boy, Alba Purpurata, British Queen, King of Yellow, Foster's Incomparable, Queen of Dahlias, Brewer's Paragon, Chancellor, Queen of Whites, Richardson's Alicia, all remarkably large and fine, and eight superior seedling dahlias.

Samuel Feast—A specimen of seedling pears, from the sickle, a very fine and delicious fruit.

Mrs. B. I. Cohen—A specimen of a fine yellow plum from Havre, and three very beautiful white egg plants.

Mr. Henry Schroeder—One dozen very fine tomatoes, some of them weighing one and a half pound each.

Sept. 3—Vegetable Department—By Mr. Js. Stranoch—half peck Lima beans, one peck Mercer potatoes, very fine, and one dozen gumbo.

By Mrs. M. F. Harrold, of New Jersey—a very fine tomatoes, weighing 1 lb. 9 oz.

By Mr. Peter Combs—one peck Lima beans, and one peck cherry beans, both very fine.

By Mr. Thos. Dixon—one dozen very fine tomatoes for pickling.

Fruits—By Mrs. Geo. H. Keerl—a dish of very fine Prince's green gage plums.

Ornamental Department—By Samuel Feast: thirteen varieties of dahlias, Salvia, Braeteata, Helianthus, Multiflorus, Plenas, &c.

By Mr. G. B. Smith—Rosa Herbamontii, Llatris, species not known, very fine.

By Mr. H. Rodewald—a bouquet of flowers, consisting of dahlias, viz. Bonny Dee, Mrs. Didier, Agrippina, Jason, and some others, with very fine German Asters, &c.

The weekly premium was awarded to Mr. Jas. Stranoch for his very fine Mercer potatoes.

FROM JAMAICA.—The Journal of Commerce has by the ship Orbit papers to the 6th ult.

The Despatch of July 30th states that the sloop Green Plant, Capt. Burke, was capsized in a squall a few days previous, while proceeding from Port Antonio to Blue Hole: and melancholy to state, the Captain and five hands were drowned. The seventh was saved by clinging to one of the hatches.

The Jamaica Herald says the Pimento crop in St. Ann's will be very indifferent this year. All the bloom was knocked off the trees at Charlton King's by a hail storm. Onton has been equally injured. The only part which will make an average crop, is the neighborhood of Runaway Bay. Holders are now asking 4½d.

THE CROPS.—It appears that the sugar crops super-abundant this season, are those of this island and at Barbadoes. In Jamaica, Dominica, St. Lucia, and others, the sugar returns are below average. We think proper to mention this, in order to arrest any misconstruction by the Abolitionists of the proximate causes of partial super-abundant crops, which in our own favoured island, is more the compensating bounty of Divine Providence, for grievances locally severe, than any result of an inconsiderate legislative act, which has only weakened or attenuated the sense of duty and the tie of obligation of the field laborer towards his employer.—*Tobago Chronicle*.

On the recent introduction of the Waterloo Casarean Evergreen Cabbage into England as food for Cattle. Communicated by J. E. TESCHMACHER.

SIR,—In Loudon's Gardeners' Magazine for October, 1828, I find the following short notice.

"The Cow Cabbage.—There is a plant of this valuable variety now coming into flower in the garden of a friend near this, from which I hope to obtain a fresh supply of seed in a few months, some of which I shall transmit to you for distribution, and the remainder I shall retain for those who may wish to apply to me for it.

W. HAMILTON."

In the number for February, 1829, is the following communication with an excellent wood cut.

"Cow Cabbage. I received a packet of seed of this extraordinary cabbage from a gentleman of Cirencester, who brought it from Jersey, and have sown it. In his garden I have seen fine healthy plants which weathered last winter in the open garden remarkably well, and seem to be equally hardy with their congeners."

It is much cultivated in Jersey, (England) and attains the height of from four feet to ten and twelve feet. The little farmers feed their cows with their leaves, plucking them from the stem as they grow, leaving a bunch or head at the top. The stems are very strong, and are used for roofing small out buildings; and after this purpose is answered, they become dry and are used for fuel. When the gathering of the leaves is finished at the end of the year, the terminating bud or head is boiled, and is said to be particularly sweet.

I am particular in giving all the information I can collect on this subject, because I had lost sight of it until recalled to my mind by the receipt of the following extraordinary and almost incredible notice amongst my last accounts from London.

WATERLOO EVERGREEN CÉSAREAN COW CABBAGE.

"This singular and extraordinary species of cabbage, almost unknown in England until introduced by the persevering efforts of Mr. Fullard, three years since, grows to the height of twelve

feet, and from fifteen to twenty feet in circumference.

"Five of these stupendous cabbages now raised to the greatest perfection, both of quality as well size, have been found by proper management an ample allowance of food for *one hundred* sheep, or ten cows per day."

The nutrition supplied by this delicious vegetable, will speedily produce the most surprising improvement in the growth and utility of every description of cattle.

It is stated as an evidence of the beneficial tendency of feeding sheep on this cabbage, that they have been found to produce wool of a finest silken texture, *twenty-five* inches long, a circumstance which, if generally realized, cannot fail to attract the utmost attention.

The celebrated agriculturist, Mr. Coke of Holkam, England, is said to have pronounced the highest encomiums on this cabbage.

Mr. Fullard, or his agent's advertisement of this new article, savors a little of puffery, unless, as he affirms, it is strictly the truth—and then, indeed, language can hardly say enough on its importance. The agent for the sale of the seed, the price of which is twenty shillings sterling (about \$5) for a packet containing twenty seeds, is Mr. Brown, No. 46 Cheapside, London, who says that in order to obviate scepticism, and to afford the highest satisfaction and confidence as to the perfect rectitude of this statement, agriculturists, graziers, and all who feel an interest in this species of produce, are requested to apply to him as above, where he will exhibit specimens of the cabbage, and also of the wool taken from the sheep fed with it. The packet of course contains the requisite directions for its successful cultivation, and the seed is stated *never* to fail. The names of the King, the Duke of Wellington, and a host of others are given as having purchased the seed to make the experiment.

In the climate of England it seems to be a perfectly hardy evergreen, that is to retain its leaves during the winter. If such should be the case here, it would be an invaluable winter food for cattle, as its height of nine to twelve feet would keep it above the snow, and render it approachable—of this, however, I fear we can hardly flatter ourselves.

With the same notice is another as follows, which I give as I received, being very desirous that every thing new, particularly when useful, should be introduced without delay.

"Mr. Fullard has also supplied Mr. Brown, No. 46 Cheapside, with a portion of the original and now perfect quality of the *Zealon Melon Golden Swede Turnip seed*.

"This species of Turnip, as attainable by Mr. Fullard's seed only, will be found the most delicious and useful of any ever introduced into the country. This, produced in such great perfection, is yet comparatively little known in England, but its value over all others is immense, and the proprietor of this seed can, therefore, with pleasure and confidence guarantee to every farmer and grazier the utmost satisfaction with a single trial.

"Seed wheat and oats truly singular and extraordinary in their nature and utility, of Mr. Fullard's cultivation, may also be purchased as above."

I wish to be clearly understood that I have nothing whatever to do with any of the parties concerned in the sale of this produce, that I give the information as I received it; but that I should not have sent it to you for publication if I did not myself think that credit might be attached to the statement.

REMARKS BY THE CONDUCTOR. We have heretofore published in the New England Farmer, notices of this Cow Cabbage, which seems revived and coming forward under new auspices. In the N. E. Farmer, vol. viii. page 325, are published the articles given above from Loudon's Magazine for October, 1828, and for February, 1829, together with a cut representing the gigantic vegetable in full growth. In page 342 of the same volume of the N. E. Farmer, is a communication from Dr. Thatcher of Plymouth, Mass., a gentleman whose zeal, industry, and talents have given him a high standing in the scientific world. In this article Dr. Thatcher mentions having received a parcel of the seeds of the Cow Cabbage, recently imported from France, from Dr. James Mease, of Philadelphia. Dr. Thatcher observed that "the plants in this town (Plymouth), the last summer, [1829] from the seeds sent by Dr. Mease, discovered a very rapid growth, and attained the height of from four to five feet before checked by the frost. Little care was taken of them, and all that were exposed without defence were killed by the winter frost, though they yielded not till near the close of winter. Fortunately one of my neighbors, from a curiosity to ascertain their worth, took up his plants in autumn and put them into his cellar. They flourished well, and he cut the leaves and young sprouts several times in the winter, and found them excellent table greens. Vegetation in the plants was not checked while in the cellar, and in April he transplanted them into his garden, where they have flourished luxuriantly, throwing out new sprouts in great abundance, which he cut several times. *One of the plants is now six feet high*, and its sprouts to the very summit, are covered with yellow blossoms from which a large quantity of seed will be produced. This plant appears to be supplied with surprising prolific power, and from the experiment just related, our farmers have ample encouragement to cultivate this article," &c.

All this is well, but in an article published in N. E. Farmer, vol. xiii. p. 14, dated July 19th, 1834, Dr. Thacher stated as follows:—"It is not a very pleasant duty to comply with your request in the last Farmer respecting the Cow Cabbage concern. I have merely to say that the plant has proved to be a worthless article. I distributed a very considerable quantity of the seed produced the first year, and I believe in every instance in New England it degenerated to such a degree as to disappoint expectation, and its cultivation was relinquished. But the letter which I published on the subject gained for me quite a flattering *notoriety*. It was noticed in various parts of the United States, and I soon found myself involved in an extensive correspondence which I believe, however, was productive of little profit to either party. Some of the letters came post paid, others not. When I sent seed to the western and southern states, I requested to be informed of the result of the trials in those climates,

but they disappointed me in every instance.—The last letter which I received came to me at twenty-five cents postage, the writer stated that he had seated himself on a new plantation, and having heard much in favor of Cow Cabbage for winter fodder, he would be glad if the Doctor would send him some seed for trial, but it might be sent part of the distance by water, and he would pay the expense. Upon the whole, Mr. Editor, the Cow Cabbage concern has been one of my poorest speculations."

It is possible, however, that the correct cultivation of the Cow Cabbage may not be understood in this country, and methods may be adopted, which may cause it to realize expectations. With that hope, we should be glad to hear further from Mr. Teschemacher, or any other person who is acquainted with the habits and culture of the plant, and believes that it can be rendered useful in our soil and climate.

OSAGE ORANGE.—The Osage Orange is a native of Arkansas and Missouri, where it rises in elegant proportion to the height of 60 feet. The tree is deciduous and hardy, as it has endured the rigors of the last seven winters near Boston, and is one of the most ornamental of all our native trees. The leaves are oval, lanceolate, of a beautiful shining green, and bear striking resemblance to those of the orange, and is armed with long sharp spines. The trees are diœcious, or some male and some female, therefore requiring more than one tree for the production of fruit; but these however can be distinguished when young. The fruit is beautiful but not eatable, of the size of a large orange, of a golden color, and the trees when laden with the fruit are splendid. The wood produces a fine yellow dye. It is valuable for furniture, as it receives the finest polish. It is remarkably tough, strong and elastic, and is therefore called Bow Wood, being preferred by the Indians to all other woods for bows. It is also supposed to be the most durable timber in the world, and for ship building is esteemed preferable to live oak.

Even the leaves so beautiful, may, it appears, be converted to very important use, since according to a memoir lately presented to the French Institute, they are valuable as food for silk worms.

On the best authority, I am assured, that the trees of the Osage Orange, when set at the distance of fifteen inches asunder, makes the most beautiful as well as the strongest hedge fence in the world, through which neither men nor animals can pass.—*Hartford Silk Culturist*.

CONTENTS OF THIS NUMBER.

To our Subscribers—Notice of the Waterloo Cæsarean Evergreen Cabbage—Northern Corn; editorial comment thereon—notice of patent for Tanning with blackberry bushes—The Osage Orange as food for silk worms—Pedigree of Durham bull Oliver—Crops of Kentucky—Spider Silk—Manure is wealth—a noble animal—New silk loom—Convention of Tobacco Planters—the Crops in New York and New Jersey—Chess, or Cheat—Culture of wheat—prevention of the fly—On the cultivation of the Beet Root—Horticultural Exhibition—Report of the Maryland Horticultural Society—Crops in Jamaica—On the Waterloo Cæsarean Evergreen Cabbage—description of the Osage Orange—prices current, advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	6 75	8 00
CORN, yellow,	bushel.	95	—
White,	"	92	94
COTTON, Virginia,	pound.	—	—
North Carolina,	"	18½	20
Upland,	"	—	21
Louisiana 19—Alabama	"	—	20
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	—
Do. do. baker's,	"	—	—
Do. do. Superfine,	"	9 50	9 62
SuperHow. st. in good de'd	"	9 00	—
" wagon price,	"	9 00	—
City Mills, extra,	"	—	9 50
Do.	"	9 00	9 50
Susquehanna,	"	—	9 25
Rye,	"	5 75	6 00
Kiln-dried Meal, in hhds.	hhd.	19 20	—
do. in bbls.	bbl.	4 50	—
GRASS SEEDS, red Clover,	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	2 25	2 75
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	8 25	8 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	43	45
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	—	3 25
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	102	110
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	2 20	2 33
Red, best,	"	2 05	2 15
WHISKEY, 1st pf. in bbls.	gallon.	42	42½
" in hhds.	"	39½	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling,	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,	"	38 40	26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

au 23.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	15	16
Shoulders, do.	"	13½	—
Middlings, do.	"	—	13½
Assorted, country,	"	11½	12½
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.	—	—
CALVES, three to six weeks old	each.	4 50	6 00
Cows, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 00	2 06
CHOP RYE,	"	2 00	2 06
EGGS,	dozen.	—	12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, ———— No. 2	"	—	9 00
No. 3,	"	—	5 00
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.
Branch at Baltimore, do	do	Farmers Bank of Virginia 1½
Other Branches, do	do	Bank of Virginia, do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore, par	do	Petersburg, do
Hagerstown, ½a		Norfolk, do
Frederick, do		Winchester, do
Westminster, do		Lynchburg, do
Farmers' Bank of Mary'd, do		Danville, do
Do. payable at Easton, do		Bank of the Valley, do
Salisbury, 5 per ct. dis.		Branch at Romney, 1
Cumberland, 1		Do. Charlestown, do
Millington, do		Do. Leesburg, do
DISTRICT.		Wheeling Banks, 3
Washington, } Banks, ½		Ohio Banks, generally 3a½
Georgetown, } Banks, ½		New Jersey Banks gen. 1½a2
Alexandria, } Banks, ½		New York City, ½a
PENNSYLVANIA.		New York State, 2½a3
Philadelphia, ½a		Massachusetts, 2a2½
Chambersburg, ½a		Connecticut, 2a2½
Gettysburg, do		New Hampshire, 2a2½
Pittsburg, 2a2½		Maine, 2a2½
York, ½a		Rhode Island, 2a2½
Other Pennsylvania Bks. 1½a2		North Carolina, 3a½
Delaware [under \$5] 3a4		South Carolina, 3a3½
Do. [over 5] 2a½		Georgia, 3½a4
Michigan Banks, 5a		New Orleans, 6
Canadian do. 5a		

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

au 23 2t

Light near Pratt st. wharf.

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

A GARDENER WANTED.

A single man of undoubted character for sobriety, industry and honesty, and who has a thorough knowledge of gardening—who is competent to manage a large garden, pleasure ground, and hot house, and to discreetly superintend several hands that would be placed under him—will hear of a permanent situation in the South, where the climate is both healthful and delightful.

Apply to the Editor of the Farmer and Gardener, Baltimore.

All applications by letter must be post-paid.

aug 30

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.

Light near Pratt-st. whf.

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st whf.

FARMER'S REPOSITORY.

No. 36 W. Pratt-street, Baltimore, Jan. 25. THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 21.

BALTIMORE, MD. SEPTEMBER 20, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, SEPT. 20, 1836.

We give place to-day to a communication from Mr. *Jefferson Shields*, of Frederick county, Maryland, on the subject of the *Hessian Fly*. From it we infer,—1st, that he has discovered a *preventive* against its ravages—and 2dly, that he speedily intends publishing it in a pamphlet form. The subject is one of deep concern to the American farmer, and indeed to the whole country, and we would say that as the season for sowing wheat has arrived, he should lose no time in giving his work to the public.

THE SEASON AND CROPS IN MISSOURI.

We publish to-day a very interesting letter from our old and esteemed correspondent, Mr. *John Smith*, of Dardenne, Missouri. The account which he gives of the crops in that land of fertile prairies and luxuriant hills, is gloomy enough, indeed, and while scanty crops arising from drought and drenching rains are the lot of the patriotic people of Missouri, the accounts which we publish in another part of this sheet, of the supposed destruction of the corn crops, by frost, in several of the eastern states, but adds to the sum of necessity which exists for agriculturists every where to husband such things as it may please Providence to permit them to gather into their respective garners. Every one who may be so fortunate as to raise any surplus produce for sale, will get good prices for it, be it of whatever kind it may; for the scantiness of one *edible* will force people into the consumption of others and thus enhance the value of all. Such are the unvarying laws which regulate trade in every department of life. But while good prices may be expected, let no husbandman forget that *economy*, which at all times is commendable, will be now imperiously necessary, and while each carefully expends his bread-stuffs, and the provender he may have for his stock, let him while it is pru-

dence to do so, provide himself now with the prospective means of supplying his cattle next spring with green meat before his pastures come in to fill up the deficiencies of his granary and stock yards. This may easily be done, by sowing cabbage seed at once for *full* transplantation.

BLIGHT IN PEAR TREES.

A correspondent of the Northampton Courier recommends as an effectual remedy for this disease, that *spirits of turpentine* be put on and about the affected parts of the tree with a brush.

COLD WEATHER AND MULBERRIES.

The Silk Cabinet states that fears have by some been entertained, that the frosts which occurred the last week would be injurious to the mulberry. But in this case as in others, where injury is apprehended, we have reason for thankfulness, that we have been visited by slight frosts, which, although destructive to some vegetables, have greatly benefitted the Chinese Mulberry, by checking its too rapid growth—in consequence of which, we may hope for a better ripening of the wood, and preparing the tree and its branches for better and more perfect cuttings.

MANURING OF CORN BROADCAST, OR IN THE HILL.

Each of these modes of culture has its advocates, and, as for ourself, we have not *fully* made up our mind with respect to the superiority of either, although we are free to confess, we incline to the belief, that the broadcast application of the manure is best; and so far as our judgment may be entitled to consideration, we think it would be found most effective to harrow instead of ploughing it in, the tendency of most manures, except the gaseous parts, being to sink. By broadcasting, the lateral roots, which extend far beyond the stalk in search of food, have a much better opportunity of imbibing nutriment than when applied exclusively to the hill. The ducts or mouths, through which the sustenance of the plant is derived, being at the extreme points of the roots, it stands to reason that none but the shorter ones, which do not extend beyond the body of the manure as applied to the hill, can derive any essential advantage therefrom. Where time and opportunity suits, and manure is plenty, both applications would be of great advantage, and at all

events, a small portion of light vegetable mould and ashes, or a compost of ashes and plaster, or lime, should be put around the plants when they first come up, to give them an impetus at the very onset, as nothing is so beneficial to the future crop as imparting to the young corn a vigorous start at the incipient stage of its growth. No one except those who may have witnessed it, can form any idea of the great use which is to be derived from applying from one to four gills of such composts as we have named, to the corn plants when they first come up: nor can they conceive the amount of increase in the yield of the corn which will be thereby promoted.

MAMMOTH TOMATOES.

We are indebted to Mrs. Doct. Thomas, of this place, for a peck of very superior Tomatoes, both of the white and yellow varieties. One of them weighed 20 oz., and many of them, judging by comparison, must have exceeded a pound. We hope the *example* of Mrs. T. will not be lost upon some of our other friends.—*Kent Bugle*.

The "*example*" of Mrs. Thomas is most certainly worthy of all emulation, and we hope, with our friend of the Bugle, that it will not be lost upon her country-women; for in truth, there is no vegetable more agreeable to the palate, healthful to the system, or more entitled to careful cultivation.

If it would not be asking too much of the talented editor of the *Bugle*, we would so far bespeak his good offices, as to procure for us a few of the seed of the fine tomatoes alluded to above, when ripe, in order that we may distribute them to our subscribers, in the hope that they will endeavor to rival the excellent lady whose care and skill have brought them to such perfection. By such exchanges of valuable seeds, a spirit of generous emulation is engendered, and the great cause of horticulture advanced and promoted, objects which should be cherished by every one.

[For the Farmer and Gardener.]

Mr. Editor:—Has the Gama Grass been cultivated in this latitude on a sufficiently extended scale, to enable you to pronounce decisively upon its merits. I think you alluded to a field of it in one of the numbers of the last volume of the Farmer and Gardener, undergoing the course of experiment at Brooklandwood. If you could give any information as to the result of this trial,

or any others that may have been undertaken, you would confer a particular favor upon

A SUBSCRIBER.

P. S. One of your correspondents in the last volume, dating I think, from Flushing, L. I., mentions a new variety of the Lima bean, which he considered superior in several respects to the varieties in general cultivation. Has any of the seed been sent to Baltimore yet?

Baltimore Co., Aug. 31st, 1836.

Reply by the editor of the Farmer & Gardener.

We have not seen any field of Gama grass on a scale very extended, but have conversed with, and received written communications from, gentlemen from North Carolina and Alabama, who have each some acres in the culture; have seen a patch of about the third of an acre at Brookland-wood, and a smaller one at Greenwood, and from what we have read, heard, and seen, are satisfied that there is no other grass that can compare with it in point of yield, amount of nutrition, and general acceptableness to cattle as food.

We have not seen the patch at Brookland-wood, since the opening of the spring, and cannot state what has been the success of its enlightened owner the present season, but when we saw it last year, its appearance was every thing which could be desired, and we have no doubt that, from its *then* prospect, his hopes have been fully realized. So well satisfied are we of its intrinsic value, both for *hay* and for *soiling*, that we shall put out an acre of it the ensuing spring.

The grass is *native* in Virginia, North and South Carolina, Georgia and Alabama, as also in the valley of the Mississippi, and we have no doubt as to its adaptation to culture in any of the middle or southern states; whether it will answer *far north*, we are not certain, not having any facts in our possession to justify us in forming an opinion; but from the hardiness and thrift of the plant, do not entertain any apprehensions upon the subject.

A gentleman in St. Mary's county, of this state, whose intelligence, sound judgement, and veracity, is above all question, in speaking of an experiment upon a small scale, which he had made, speaks of it in terms of the most unqualified approbation. He says:

"It will grow in any good soil that will produce wheat, corn or tobacco—that the peculiarities and vicissitudes of our climate do not materially affect it—that its growth is so rapid, it may be cut every 15 days from the middle of May until frost, and at that age it makes better and more delicate hay than when suffered to stand longer, and is the best hay I ever saw, resembling in odour the finest cured blades—that it is

more easily cured than any other hay, in consequence of its containing but little succulence and less woody fibre."

He also states, that "it is preferred by stock to any other cured hay, and that, for the purpose of soiling and feeding green, there is no grass to be compared to it."

In corroboration of the preference given to this grass by cattle, when cured into hay, we will mention a fact related to us by a respectable physician in North Carolina, who has several acres of it under cultivation. He placed before his riding horse, a small quantity of fresh corn blades, newly cured timothy hay, and fresh gama grass hay, neither of the two first named were touched by his horse until he had consumed all of the latter—a more striking instance of partiality could not be desired.

Cotton, of the new crop, says the Newbern, (N. C.) Spectator, was sold at Columbus, Ga. on the 25th ult., at 27 cents. One bale, quality extra-prime, was sold there at public sale, and brought 41½ cents per pound.

A KILLING FROST.—The New York Journal of Commerce says—"There is reason to fear that the frost of last Tuesday night, 6th inst. has cut off the hopes which were entertained respecting Indian Corn and other fall crops. We have had an opportunity to converse with persons from the interior of this State and with others who have passed through New England, and they say every thing is killed. The market people who come in from around the city bring the same report."

At Utica on the 6th instant, the thermometer sunk to 31°.

The Buffalo Journal of the 7th says that a severe frost on Monday night swept all before it in the south towns of that county. The same calamity, the Journal thinks, "has also been visited upon other, if not all, sections of western New York. If so, the loss to the agricultural portion of our people is irreparable: and the circumstance is calculated to occasion the most serious apprehensions in the public mind."

At Salem, on the 6th, ice was seen in various places.

The Newburyport Herald says that ice as thick as window glass was seen in that vicinity, on Wednesday morning last.

Early Frost.—On Tuesday night there was a very severe frost in this vicinity, which has killed cucumber, squash and potato vines, and injured almost all vegetable productions. Early frost we have called it, and it would have been in almost any other season, but we have had one every month during the summer. In Smithfield and Cumberland the tops of the houses looked as if there had been a fall of snow.—*Providence Journal.*

Crops in Vermont.—The early frost in Vermont has nearly destroyed the corn, potatoes and

buckwheat in several sections of the state.—*Troy Budget.*

From the Portsmouth (N. H.) Journal.

Green Corn and Snow Balls.—On Wednesday morning we noticed in a market wagon, containing corn in the milk, the strange sight of a snow ball between 2 and 3 inches in diameter. It was formed from the frost which on that morning was visible in every direction around us—blasting, we fear, the small hopes many of the farmers had cherished of their corn crop.

A CARD.—If the lovers of shrubbery, culinary plants, botanical varieties, or garden productions, of fruit trees or vines, will, from any one or more of the eastern cities, forward me, from time to time, via New Orleans, to the care of "Hefford & Sorgentry," of that city, and of Peter Roach at the mouth of Wabash, the above productions, well secured, or seeds of any description, in a box of reasonable size, to be forwarded in the spring or fall seasons of the year, and deposite in the box a list of the varieties, numbered and labelled, and their name and place of residence, I will, in return for the favor, pay the freightage, and return the next season, to such friend or friends, in like manner, an assortment of all the varieties of production of the GRAND PRAIRIES of Illinois, in slips, roots,* or seeds, and of our forest trees and shrubbery, whether for fruit or ornament, and feel well satisfied that I shall, more than repay such a friend or friends in the exchange. Such a collection from this region will be well worthy the attention of botanists, of the amateurs of flower gardens, as well as agriculturists.

T. H. S. HINDE.

MOUNT CARMEL, Falls of Great Wabash,
Wabash co. Ill., July 29, 1836.

N.B. That no inconvenience may occur, I should be glad to be apprized, by letter, beforehand, (post paid,) of the intention of any friend or friends who may be disposed to enter into such an arrangement, as it will be done merely for mutual accommodation, and not for speculation.

P. S. The worthy Editors of city papers will please give my "Card" a passing insertion.

T. S. H.

* I have the Indian vine potato growing; a wild sweet potato grows in sandy land 7 or 8 feet. I shall prepare a place next season to plant them. Some years ago, I dug up about 3 feet, (part of a root,) roasted, and ate it; it tasted like the sweet potato. I think very great discoveries might be made as to animal food by trying such experiments.

New Flour.—Complaints are made in several quarters that the bread manufactured from flour of the new crop is found to be exceedingly unwholesome. We do not know whether these complaints are well-founded, but at all events it is desirable that as much care as is possible should be taken in preparing the wheat before it is sent to mill, so that the bad grains—of which we believe there are many in the present crop—may be separated from those of a better quality. It is suggested to us, also, as a prudent precaution against the injurious effects which are feared, that the bread should be eaten cold.—*Winches. Virg.*

For the Farmer and Gardener.

HESSIAN FLY.

Mr. Editor :—Having observed a number of articles written on the subject of Hessian Fly, going the rounds of the various public journals, one of which made its appearance some time since in your paper, over the signature of "A Bucks County Farmer," (which I observe has been very generally copied into the country papers,) and which, from the apparent fairness of his experiments, has induced many to prepare to use his remedy this fall. His plan is, to soak the wheat, then roll it in quick lime just before sowing, thus according to his theory on the subject, destroy the insect in ova or in the egg. This theory appears so plausible, the experiments so fair, that, taken in connection with the entire failure of the wheat crop last season, I am not surprised to find the farmers so generally ready to test its efficacy; for, like a drowning man they are ready to catch at straws, or to lay hold on any plan which holds out the least shadow of a hope for better.

I once entertained opinions similar to those advanced by "A Bucks County Farmer," in relation to the manner in which this insect propagated its species. But close observation, minute experiments, and an accurate examination of the habits of the insect, has long since convinced me of the erroneousness of the theory, for it is nothing more than theory.

I now assert, and hold myself bound to prove the fact, by ocular demonstration, that the hessian fly *never* does deposit its eggs or ova on or in the grain of wheat, consequently, no agent applied to the seed, can have the least influence in preventing the ravages of the insect. The inference (theoretically) is drawn, that, because the pea bug deposits its egg in the pea, which afterwards eats the heart out of it, that the Hessian Fly in like manner deposits its eggs on the grain of wheat. This is an unfortunate comparison for the friends of the theory before us; insects differ essentially, in the kind of nourishment which they require; the pea bug is deposited in, lives upon, and is nourished to maturity by, the fruit of the plant or vegetable. The Hessian Fly is evidently nourished by the stalk or tap of the vegetable; besides, it never evinces the least power of locomotion, from the time it is an ova or egg, (only to be seen through a microscope,) until it becomes a perfect winged insect. How does it get from the root to the second and third joints of the stalk? again it is an admitted fact, by entomologists, that insects always deposit their ova on, in, or very near, the food destined for the support of their young. Witness the wheat weevil, the cheese skipper, the pea bug, and many others, indeed, the whole generation of insects. Is it possible, that nature has so far deviated from her general course, (she is generally uniform) as to enable the hessian fly by some unknown power to ascend from the root to the stalk, for, as I before stated, it at no time possesses locomotive powers, until it becomes a winged insect. But enough of theory: it is an old and true proverb, that one grain of experience is worth a bushel of theory. With the view therefore, to prevent as far as possible, the labour, expense, and trouble, that many will incur, I submit the following experiments.

Last fall I prepared a lot of ground in the best manner, for wheat, and sowed it on the first day of October; one-half the seed I soaked in water twenty-four hours, then, whilst wet, rolled it in lime, causing as much to adhere to the grain as possible, the balance I sowed dry. The seed was all of the same kind. About one month after it came up, I carefully pulled up all the stalks that grew on a foot square of the limed part, and a like quantity of the unlimed part; I then carefully opened every stalk, and counted the larva, (or flies in the white state) as they are called, when I found there was nearly three times as many in the limed as there was in the unlimed part. This experiment I think, should be conclusive against the preventive powers of lime. In some instances the fly was within one-fourth of an inch of the grain of wheat, when covered with lime. I have tried many agents besides lime, both on the seed, and on the growing grain, but all without effect.

I stated that there was nearly three times as many flies in the limed, as there was in the unlimed part; this no doubt will appear strange; sowed on the same day, the same kind of seed; is it possible, that the lime increased their number? No. The lime appears to have had no agency whatever, in increasing or diminishing their number, their increase arose simply from the fact, that, that part which was limed was soaked, therefore it vegetated sooner, and came up on the fifth day, the dry did not come up until the tenth day; at the time the first was making its appearance, the flies were very numerous, and impregnated almost every stalk; when the dry part made its appearance, the generation had nearly passed away, consequently, it escaped their ravages in the fall. The limed part remained thinner until harvest.

My attention was drawn to the study of the habits of this insect, about seven years ago; I found there was but little known on the subject, and that little in a very crude state. Each farmer had his favorite theory, (for, as to observations and experiments, but few had been made). It was really amusing to hear the serious and opposite views on the habits of the insect, and the several strange and opposite plans adopted to destroy them. Since that period I have made its habits a particular study; for two or three years of the time, I made daily observations, through winter and summer, hot and cold, wet and dry; being convinced of the importance of acquiring facts before forming principles. By patient enquiry, and by minute and careful experiments, I have found the following facts to be true, and made the following discoveries; all of which have been submitted to the test, of the most accurate experiments, and most careful observation, previous to adoption:

1st. What the insect is in appearance, from the time it is in the state of ova or egg, until it becomes a perfect winged insect; the period it exists in the state of ova, moth or worm, crysalide and perfect insect; the number of eggs that each deposite.

2nd. The kind and variety of vegetables that are alone, capable of supporting the moth or worm.

3d. That it is periodical in its depositories of eggs,

and that it invariably makes them through the blade, near one of the joints, to the stalk, by means of an instrument something like that of the locust.

4th. That there are four distinct generations of them every year.

5th. The influence which the various changes of the weather and seasons exert on them; such as heat, cold, moisture, winter and summer; and the peculiarities of individual insects, under certain circumstances.

6th. The best time or season to sow wheat, so as to avoid their ravages in the fall, and lessen their number in the spring.

For the benefit of farmers this fall, I will state, that the best season to sow to avoid their ravages, will be from the third to the tenth of October. I have neither time nor space to give my reasons, but will merely remark, that, this season has been adopted after most careful observations. I shall give my reasons at large in another form hereafter.

7th. From the facts which I have collected, I am able to determine almost to a certainty, the probable number of flies the next season, this I do in the month of September. To test this part of my observations, I have been in the habit for four years past, of predicting to my neighbors, the probable number of flies; and in no instance have I failed; unfortunately my predictions were rather more than realized last season. The rules by which I judge, are founded on the laws of nature, and are as fixed and as certain as those of gravitation; the most common mind can comprehend and use them. I am sorry to say, that, if these rules hold true, the insect will be very numerous next year, but not so much so as last year, the injury to the crop will not be so general. The only way to avoid their ravages in some degree, will be to sow at the time mentioned above, and sow thick, not less than two bushels on an acre.

8th. Several local remedies by which individual farmers will be much benefitted.

9th. A general remedy, which if universally adopted will exterminate the insect in two or three years; if used by individual farmers, will benefit them very much.

Those and many other facts and discoveries, have been the result of my enquiries into the habits of this insect. It would require too much room in a newspaper, to join my experiments and the reasons for the adoption of the conclusions which I have arrived at; besides, I have often remarked, that articles of this kind, appearing in a newspaper, are generally lost and forgotten before the author's plans can be experimentally tested.

Farmers have been so often deceived by the numerous speculations and theories, which have appeared on the subject, that they have become distrustful of every thing, and are slow to submit that which has the appearance of novelty, to the test of fair experiment, unless it makes its appearance in a form more imposing, than that of a newspaper essay. My object being principally to benefit that useful class of my fellow-citizens, and being convinced of the truth of the facts just stated, I have, by the advice of many of

my friends to whom I have submitted my views on the subject, determined to publish a small book or pamphlet, by means of which, I shall be able to exhibit my views on the subject in such a manner as to be understood by every farmer. It shall be divested of every term of science that it is possible to avoid, so that every one can comprehend and test my observations and experiments.

This will place the matter before the public in a more permanent form, than it could possibly be through the columns of a newspaper; at the same time, so condensed as to be easily referred to at all times. The great interest manifested by every class of society, for the discovery of some agent by which this fell destroyer of the staple of the middle states, and staff of life, may be mitigated, must be my apology for appearing before the public over my proper name.

JEFFERSON SHIELDS.

Emmitsburg, Fredk. Co., Md. Sep. 5, 1836.

P. S. Since the above was written, I observed an article from the Harford Republican, over the signature of "W. L. Horton." The gentleman appears to have taken the only correct method of arriving at the truth on this subject, that I have seen; although many of his opinions are incorrect, he has made very rapid advances in the short period which he appears to have devoted to the subject, towards the true history and habits of the insect.

In short, his essay is the only one that I have seen, that deserves the least attention from farmers. If his experiments are continued as long as mine have been, we will not differ on the subject.

One error which he has fallen into, is, that his time of sowing is too late. Late sowing is just as dangerous as early: the proper time is that which I have stated, (to wit) from the third to the tenth of October.

Will the journals favorable to agriculture, in the grain growing States, give this article an insertion, it may be of service to many of their patrons, and benefit the public generally. J. S.

[For the Farmer and Gardener.]

THE SEASON AND CROPS IN MISSOURI.

DARDENNE, Mo. August 21st, 1836.

You have latterly published very many gloomy and melancholy accounts of failures and disasters of almost all sorts in the agricultural departments of our country, and I would fain present the reverse of the gloomy pictures your journal has presented, if the condition of this western portion of our common country, would justify me in doing so, but, unfortunately for us, the picture there presented is but too faithful a representation of the actual condition of things here. The season here, commencing about the middle of November last, has been a very peculiar one; one which from its character has imposed peculiar hardships on the farmer.

About the time above mentioned, the weather became very wet, and on the 19th or 20th of that month, winter with all its disagreeable accompaniments set in, and caught a very large proportion of the corn crop out standing, and with the exception of a few days at a time we had no

weather fit for out door business during the whole winter, which continued till about the last of March, the weather nearly the whole of that time being either too wet or too cool for outdoor operations, and there was consequently less work done here, during the last winter and spring, than I have ever seen done in any winter and spring heretofore. Shortly after the winter broke, and before our land became dry enough for the plough, a long series of heavy cold drenching rains, commenced falling, and continued to fall at short intervals up to the 23d of May, when the last one of the series fell, the very day* if I mistake not, when the fatal wet spell commenced in the Eastern states.

It will be readily imagined that this wet weather put our ground in the worst possible condition for receiving the spring crops, and also that they must necessarily go in very late; and then suppose, that under these unfavorable circumstances a drought of more than two months continuance, and of unexampled and peculiar character, and our actual condition will readily be conceived. Now for the result of the peculiarities of the season.

The *wheat* and *rye* crops were much, very much, winter-killed every where; indeed, it could not be otherwise from the character of the winter which fluctuated from wet to extreme cold and *vice versa*: the crop of winter grain was therefore very scanty except on light alluvial lands, where it was about a fair one; but take the country throughout, and the crops were about one third or between that and half the average of crops, and the grain of an excellent quality. After the winter broke, the season suited the wheat crop entirely well, a great portion of that grain was partially hove out by the winter, and would have perished had the spring been dry; as it was, that crop improved very much after the spring came on, and the weather was favorable for maturing and harvesting the crop; the *oats* crop from the lateness of the period at which it was put in, the very bad condition of the ground, and the subsequent severe drought, is very light, indeed, a great deal of it not being worth harvesting: but on fresh or alluvial land, the crop is good, little of such is, however, put in oats here, as in ordinary seasons, the crop lodges on such lands, and is lost: the crop of *hay* has been pretty abundant, particularly of clover, which was much advanced before the drought set in, and the crop of *timothy* on good lively land was pretty heavy, but not first rate in quality, as on such lands, the grass fired about heading time, during the severe drought: the *vegetable* crop has failed almost entirely, except *early potatoes* and *cabbages*, the former of which was much advanced before it felt the influence of the drought, and the latter will have time to make itself since it became seasonable again, and *turnips* should also be included, as a crop that will succeed, but they are not cultivated here except for the table; but the *corn* crop which is the main staple of this whole western world, has suffered most; from the unfavorable character of the season, it was unavoidably planted late, and

the ground in wretched bad order to receive and sustain the crop, even under auspicious circumstances; as to the weather afterwards, and just after the crop was planted, and before a great portion of it was up, the weather became dry and cold, so cold, that we were apprehensive of biting frosts for a number of nights together in the first of June. The crop, however, eventually came up pretty well, but it continued entirely dry and the air generally harsh and ungenial from the 23d of May up to the 24th July; and even to a still later period in some places; we had however within that time two hasty showers, one of which on the 8th July made a season for setting out *tobacco plants* in some small neighborhoods, while in many places the dust was not laid.

The corn crop will, consequently, and particularly on our high prairie lands be exceedingly poor, and will probably turn out entire failures; from its extreme backwardness, if we should have had frosts as early as we had the last fall, it will sweep the entire crop with the besom of destruction; under the most favorable circumstances that can occur we cannot make much more than half the ordinary quantity of corn through the upland portion of the country: but on the low grounds of the Missouri, and in some places on the bluff lands, near that river, where the crop has been strictly and judiciously attended to, there will be a fair average yield, if the season permits it to mature. The *corn* crop on the alluvial lands of the Missouri will never be materially injured by drought in the latter part of June or through July, as the annual rise of that river, occurs at this period, and the whole bottom being composed of alternate strata of sand and vegetable mould, with occasionally a mixture of clay deposit, it is of course porous and the water rises just as high at the back of the bottom, if that should be 2 miles, as in the channel of the river: at that season of the year the water is sufficiently near to the surface to prevent any serious bad effects to the corn crop, if the farmer have done his duty in pulverizing the soil, and keeping it in good condition. We do not however anticipate a famine here, even under the most unfavorable circumstances that are likely to occur, the wheat crop of the present season and the old corn that is in the country will supply the inhabitants with bread, if not abundantly, at least sufficiently to prevent starvation, and altho' the drought was so long and so severe, our stock has done well on the range; and from the present character of the weather, which is wet and growing, will continue to do well until the frost kills the range, and will then come in fat, so that we shall have an abundant supply of good fat beef, and there is perhaps about mast enough, and of the right kind too, (*white oak*) to fatten our pork, so that we do not calculate to starve, tho' we shall doubtless suffer many privations and inconveniences.

You lately published an address delivered before the Agricultural Society of *Albemarle, Va.* by Mr. *T. J. Randolph*, the greater portion of which I consider as very sensible and pertinent to the subject in hand; but he is either ignorant of the true character of one of the grasses of which he treats, viz: *blue grass*, or that grass has radically changed its character by emigration,

* It commenced with us on the 24th May.—
Ed. Farmer & Gardener.

or a change of soil and climate. Mr. Randolph recommends close pasturing for the eradication of blue grass before ploughing it in for a wheat crop, and observes that, as that grass has no groundleaf or afternarth, if it should be pastured close and thereby prevented from seeding, it would be readily destroyed by a single ploughing, and observes further, that that grass is never found growing on road sides, or commons, where the ground is trodden and grazed closely: now these are the very sort of situations where the blue grass makes its first lodgments here, and continues to spread and increase and maintain the possession of the soil in despite of the closest grazing and incessant breeding, and from which it cannot be destroyed by any method that I know of, except that of repeated ploughings and harrowings, and then the weather must be of a dry character, or it will not die under this process. Grain crops of all kinds, however, that I have seen tried on blue grass soil, succeed well, and I have never seen a small grain crop on it that I considered injured materially by being sod-bound: this grass here, propagates, perhaps, a hundred fold more by runners shooting out in all directions from the original seeding plant, than by its seeds, so completely do these runners fill the soil and interlock with each other, that it will always hold enough of the soil together to maintain vitality if ploughed deep enough to turn up all of these runners, and repeated harrowings in dry weather are necessary to separate the runners from the soil which sustains them. I am not satisfied that the red clover has not changed its character here in the west, and become from peculiar circumstances a *perennial* instead of a *biennial* plant; at all events, I have proven by an experiment of 13 or 14 years standing, that it is not necessary to seed the land often, in order to the successful cultivation of that plant, and this is sufficient for my present purpose, which is to persuade those farmers who have not yet commenced the cultivation of that plant, to do so without delay, and let not the supposed trouble and expense of *biennial* seedings deter them from embarking in its cultivation; for I have raised good crops every year since 1823 on the same piece of ground without any renewing whatever; the whole secret being in keeping it from being grazed close or trodden by stock.—Those farmers who have heretofore cultivated perennial grasses only, can hardly be persuaded at all to engage in the production of grass which will once in every two years tax them with the expense of seed and the labor of preparing the land and putting in that seed; but convince them that this labor and expense is not necessary, but that one putting-in, may, if they choose, produce them 14 abundant harvests at least, and you remove a great obstacle to the improvement of our land.

The foregoing is at your service: you may either publish or reject all or any part thereof, and I shall be content. It is submitted to your better judgment.

Yours, respectfully,

JOHN SMITH.

BEETS.

Beets furnish from a given surface of ground a greater quantity of nutriment for horses and cat-

tle than any other kind of forage. Wherever its cultivation is understood, it has the preference over all other roots. It succeeds in almost all soils, is but little affected by the vicissitudes of seasons, and prepares the ground very well for succeeding crops.

Throughout Belgium and Germany, the leaves are from time to time stripped off and given to the cattle, which eat them with avidity and easily fatten upon them. Fowls are also fed upon them. They are first hashed up, and then mixed with bran. Pigs eat them with a good relish. Milch cows, when fed upon them, fatten at the expense of their milk. The leaves are equally valuable in the fattening of cattle and sheep.

Beets should be gathered when the weather is dry, and put away in a dry state; and when prepared for cattle, they must be cut up fine with some suitable instrument, and may be given either alone or mixed with straw or hay.

They are equally fit for horses, with the precaution of adding a variety of cut straw and hay well mixed together. This food will preserve them strong and vigorous, as is well ascertained in Germany, where beets are much cultivated for this purpose.

For the fattening of a bullock, forty or fifty pounds of beets per day mixed with five or six pounds of dry fodder, will accomplish the objects in the space of four months. Care must be taken to give it in three separations, since by feeding often and in small quantities at a time, the same amount of nutriment goes farther.

Finally—by facilitating the means of stable fattening, throughout the year, beets furnish a very important addition to this means of augmenting the mass of valuable manure.

They may serve also, on occasions, for the food of men; they are less subject to the vicissitudes of seasons than turnips, and their leaves supply for several months an excellent food for cattle. The root may be easily preserved during eight months of the year. They give milk an excellent taste and quality. Cattle eat them with avidity, and are never tired of them. The culture of no forage root can compare with that of the beet, in the number of advantages which the industrious cultivator may derive from them. We cannot too strongly recommend the introduction of them into places where they are not already in vogue.—*Bib. Univ. for 1831.*

Surgery of Nature—The surgeons may lay aside their instruments for extracting the stone in the bladder. A mineral water which flows from a known fountain near Recoaro, in Lombardy, not far from Vienna, possesses the virtue of destroying the stone in the bladder, provided the individual afflicted continues to drink of this water during a certain lapse of time, when the calculus naturally dissolves of itself, without any necessity for resorting to an operation. Last year a Tyrolian, about 70 years of age, was cured of the disease, by drinking of this water; the stone coming away in small particles. Dr. Brera, an eminent physician, has published a report of this extraordinary cure, the truth of which can admit of no doubt. We must have a chemical analysis of this water, that it may be imitated by an artificial compound.—*Balt. Gaz.*

From the Northampton Courier.

Extract from Gen. Tallmadge's Correspondence.

CULTIVATION OF SILK, &c. IN FRANCE.

PARIS, April 9, 1836.

"I have had the pleasure to attend, by invitation, at two meetings of the National Institute of France. It is a noble assemblage of scientific men, and a source of continual benefit to the public weal. A small sum, about two hundred dollars, is allowed by the government to each member for his attendance at the weekly meetings, and for which the Institute returns answers to the government when required, upon questions connected with the arts and sciences, including agriculture, manufactures and the kindred branches. I have also attended a meeting of the Agricultural Society, and was present at the awarding of the premiums for the services of the last year, and found it not only interesting, but a fund of useful information. I send you their *Programme* of their proceedings, and also of the subjects and prizes offered for the next year. This paper will afford useful suggestions to the American Institute.

The public institutions of France are open and accessible to strangers, and are a matter of just pride to the nation. The specimens in mechanics are curious and useful. There is a *Swede* here, now a denizen of France, who claims to have made an essential improvement upon the steam engine. His proposition is to dispense with the steam boiler, fire and its attendant fixtures, and to adapt to a common high pressure engine, the use of *ammoniacal gas* as an efficient power. It is alledged that this gas can be prepared in reservoirs, so as to come in place of fuel, at a cheaper rate, with an exemption of all danger of explosion, and a great saving of the space for the engine and its fixtures. It is insisted there will be a saving of at least one half in expense, as well as in space. He has shown me his model. He has obtained a patent for England, and also for France, and he intends to sail in a few weeks for New York, with a view to obtain a patent in our country.

Many questions of interest under our patent laws have been propounded to me here, and among other things, it is noticed that while England and France open their patent privileges to all the world, America limits hers to her citizens, or to *resident aliens intending to become citizens.*

I have visited the anatomical museums and medical establishments, and attended operations at the hospitals. Very many opportunities are offered to medical students; and when we cast a look, in comparison, to N. York, who will not breathe a sigh, that bad organization and personal feuds should have so long prevented a like growing institution in our city, where I insist there is equal talent and more enterprise. We have heard so much *pro and con* in relation to Monsieur Seviale's new process of Lithotomy, that I have made his acquaintance and witnessed his operations on both male and female patients. The stone was successively broken and extracted, and the patients arose and walked away almost uninjured. The operation is not often very severe or painful. I have full confidence in his improved plan, and instruments, if they are not abused in conceited or unskilful hands. I was

gratified to find among the spectators two or three medical young men from our country.

I send you a report of M. Bodin on the agriculture of France. These papers demonstrate the great interest felt in France in the improvement of its agriculture; and it appears to be increasing in its general prosperity. It is often said, that the husband with his vineyard, and the wife with the silk worms, are at present the best sources of national wealth. Much pains are taken to improve the culture of the silk; it has hitherto been carried on almost entirely in Italy and principally in France, by private and individual industry, and supposed to be unskillfully and imperfectly conducted. The government have established three model farms, for the purpose of various experiments in agriculture, and especially in silk. I have been in the interior to visit one of those farms, and was permitted to examine its details. A separate house is prepared for feeding the silk worms, which are heated by a furnace, its heat regulated by a thermometer, and its ventilation attended to with care and system. M. Beauvais, its director, states that 1 oz. of eggs will produce in India 20 lbs. of silk; in Italy, 2 to 6 lbs. do.; in France, 5 lbs. That this great difference of product arises from care, skill, and treatment. That he has last year, in his experiments, increased the product up to thirteen pounds, and is confident of a greater increase this year. He thinks a dry and cool climate is best, and that the room should be made equal in temperature by heat and ventilation. The worms are here fed by leaves, put on a net suited to the frames, and which is to be laid over them: worms soon ascend to the new leaves, and can then be removed on the net and the frame cleaned. When the leaves of different kinds of mulberry are mixed together, the worms will select and gather on the Chinese mulberry, and yet it is not a settled point here in what consists the superiority of the Chinese over the other kinds of mulberry. The model plantation of trees is planted in rows of 12 feet apart. The trees are six feet apart, in the rows, and are cut down so as to have four or six sprouts from near the ground, and these in after years are cut off so as to be kept dwarfed for use in picking leaves. It is believed an acre or two, thus allotted to trees, and near the house, will give such facilities and product, as to make the best result, and so it appears to me. The Chinese mulberry will sprout from cuttings about six inches long, and set in a row four inches distant. I have visited one garden where 50,000 are just set out in this manner, and where 20,000 were thus raised last year, and, have been sold, and, as is said, to the American market.—The French farmers have no aptitude to change, and comparatively but few Chinese mulberries are set out in France. If the nurserymen are to be credited, they have sold one hundred trees for America for ten transplanted here. From my own observation I believe it to be the case.

M. Beauvais has tried with profit, a room heated to 18 and 20 degrees (Reaumur) and says 28 and 30 is used in India. M. Beauvais and several other growers of silk, whom I had seen in the country have since visited me at my rooms in this city, and have communicated freely with me.—There is often discrepancy in their statements and opinions, and their allegations will only serve

as clues to enquiry; but I trust the safe common sense and keen observation of the people will soon understand, as a science, the growing of silk much better than Europeans, who, after the experience of ages, act more from usage and habit than skill and experience. I have entire confidence in the full success of our people in the culture of silk. Most of the gentlemen I have alluded to, have agreed in the opinion that a warm climate is not so good as a regulated room; and one of the gentlemen, of experience, says he constantly uses plates with *chlorine* in the room to purify the atmosphere, and without injury to the worms. Some doubt establishments for feeding the worms, and prefer private industry in family rooms. All agree that a damp climate is injurious, and therefore say that silk does not prosper near the ocean, where the damp westerly winds prevail;—and they express an opinion that our warm and dry summer climate is admirably fitted for the business of silk as well in families as in establishments. France is found to produce not more than one half the silk she manufactures; it is purchased from Italy and the Archipelago. Her thirty-three millions of inhabitants cannot afford a space sufficient for the mulberry trees to supply her own wants. Our country is exempt from this difficulty. Various books or manuals of instruction in the culture of the silk, have been published here for the use of families. I have collected them and shall endeavor to bring them with me for the library of the Institute. I must omit further details till an opportunity for personal explanation.

[From the New England Farmer.]

FARMERS' WORK.

Selecting and Preserving Good Seed.

The seeds of various vegetables are now daily becoming ripe under the eye of the cultivator; and if he does not gather the best, and make the most of all sorts of useful seeds, he neglects one of the most important branches of rural economy. Gather the best seeds only for propagation, and let those which are not first rate never be used for planting or sowing. The dry kinds of seeds are best kept in their own pods or outer coverings; but the seeds of all soft fruits, such as cucumbers, melons, &c., must be cleansed from the pulp and mucilage, which surround them; otherwise the rotting of these parts will spoil the seeds.

When seeds are gathered, it should always be done in dry weather; then they should be hung up in bags in a dry room, so as to preserve them from the air.

The selections of seeds depend principally on a proper choice of grains and kernels, as well as roots, from the vigorous vegetables, growing under our own inspection; for though it be conjectured that the cultivation of a particular plant from the same seed, and in the same soil, will at length cause it to degenerate, yet numerous well attested instances have occurred, in which the contrary is evident. The more healthy stalks or stems should therefore be selected for bearing seeds; and such as attain maturity at the earliest period of the season ought to be preferred, especially if they grow at a distance from weakly plants of the same species; lest fecundating farina of the latter be blown on the stigmata of the

former, and an inferior kind of succession be produced.

The proper time for gathering seeds is the period of their perfect maturity, which may be ascertained by the dryness of the stem; because when the latter begins to decay it becomes bleached by the oxygen of the atmosphere, and no further nourishment can then be conveyed to the seed.

Fruit Trees.—If in looking over your orchard you should happen to perceive any limbs overburdened with fruit, you will pick off a part, or put props under the limbs, or both. In most cases, if you can afford time, it would be advisable to pick off supernumerary apples, peaches, &c., especially from young trees. Mr. Coxe, observed that "no error is more universal, than an anxiety for early productiveness in an orchard. It is generally obtained at the expense of much eventual profit, and a great diminution of the size and vigor of the trees. Believing early fecundity to be injurious to the vigor and perfection of plants, I am always attentive to pluck from trees these evidences of early maturity, in the first stages of their existence."

Bushes.—This is the right time of the year for destroying the bushes which are apt to overrun pastures, &c. Wet weather is best for this purpose, because the sap vessels will continue open longer, and the sap discharged, the root weakens the plants, and eventually the power of reproduction is annihilated. Bushes which grow in clusters, such as alders and some other sorts may be pulled up by oxen, and this is an effectual way of subduing them. A writer in the New England Farmer, volume 1, p. 306, asserts in substance, that bushes in pastures are best destroyed by sowing plaster of Paris at the rate of about one bushel to the acre, on land overrun with them. It appears the plaster gives such growth to clover and other grasses, that the growth of the bushes is checked, and they are eventually stifled and exterminated.

Pasture.—An English writer recommends to mix a few sheep, and one or two colts in each pasture for horned cattle. Another says—"The following economical experiment is well known to the Dutch, that when eight cows have been in pasture, and can no longer obtain nourishment, two horses will do very well for some days, and when nothing is left for the horses, four sheep will live on it; this not only proceeds from their differing in the choice of plants, but from the formation of their mouths which are not equally adapted to lay hold of the grass."

Plaster.—In the seventh number of this volume of the Farmer, we published several articles on plaster, in some of which it was recommended to put it on light soils, not on those that were stiff and clayey. It was also stated that farmers in Falmouth and other towns near the sea coast, observed that plaster was no benefit to their farms, owing, as they considered, to their nearness to the sea. In regard to those articles, a farmer from Falmouth informs us that he has received a great benefit from the application of plaster to stiff clayey soils, and that other farmers in that town, particularly on and near the river Piscataqua, have been very much improved by

plaster. Cold soils, of a clayey loam, that produced nothing of consequence but a light crop of weeds in a short time after they were laid down to grass, have been so much improved, almost wholly by the use of plaster, that they produce abundant crops of clover. In some cases the land has been ploughed, and the plaster applied to the tillage, and in others the plaster was sown on the land without ploughing. Both methods have been very successful, and have increased very much the value of the farms. The same gentleman further observes that he has applied plaster to light sandy soils without any perceptible advantage. In the interior, plaster is mostly used on light soils, and on such it is considered most beneficial. Every farmer who has not a plenty of manure should try the effect of plaster on his farm; it is very cheap, costing only about thirty cents, besides transportation, for enough for an acre, according to the usual quantity used. Old pastures may be greatly improved by sowing plaster on them. From experiments that have been made, there is no doubt that pastures might be improved in this way so as to pay ten times the expense. No farmer should neglect trying the experiment, noting the part of his pasture sown with plaster, and the effect it produces.

A farmer in Freeport remarked to us that in sowing his ruta boga seed this summer, he put plaster in a part of his drills, dropping it on the seed, and planted some without plaster, and the consequence was, that in the drills that were plastered, the seed came well, and there were too many plants by half. In the drills not plastered, there were not more than one fourth so many plants as were necessary.—*Yankee Farmer.*

HAY ON BARN FLOORS.

When hay, particularly clover, is thrown on the floor, much of it, and of the most valuable part, too, breaks and crumbles into small pieces, that the forks will not take them up. In most barns, this is entirely wasted or shoved out into the yard, where but comparatively little of it is picked up by the stock. "I," says an aged farmer, "keep my barn floor as clean as my wife's parlor, and every day shovel it into an old sleigh or box, which I keep standing by, all the leaves, seeds, and fine parts of the hay. This makes superior hay for my cows; if moistened with water, and a small quantity of bran or meal added, and given about the time of calving, nothing appears more nourishing to them."

Extract of a letter from Charles Gale, Esq. of Milton, Pa.

It is now more than twenty years since I first thought of sowing clover seed among Indian corn. My first essay was a failure; my second succeeded to admiration, and the seed was covered by the plough. Since that time I covered it with the harrow or cultivator, and with various success, depending in a great measure on favorable weather during the month of August. If successful it should be strewed with gypsum the next spring, and may be partially pastured in summer. It should be ploughed down before wheat harvest, and will be generally a good manure for a succeeding wheat crop; plough again after the middle of September, which will prepare the ground

in the best possible manner for the reception of the seed.

HOW TO MAKE A DOUBLE CROP ON A POOR SOIL.

Plough up your ground intended for corn in the fall of the year, as deep as you can plough it—let it lay till spring—at the opening of which, when the frost is entirely out of the ground, give it a good ploughing and harrow it down. It is then in good order for preparing to plant. Take of slacked ashes, two thirds, and of ground plaster one third: mix them well together, and follow the droppers, and put as much of this mixture on the seed as you can grasp in your hand, and cover it in the usual way. The corn will grow off finely, and retain a strong and vigorous growth and green color, and stand the drought much better than upon the strongest culture. The writer of this having tried the experiment for two years, has fully tested its value.

Stock Fair—The Kentucky Association Stock Fair commenced on Monday last, and will close to-day. The first day was occupied with the exhibition of Cattle, and we are quite sure, we but speak the unanimous opinion of all present, when we say there never has been in this country a larger collection of splendid animals of that description. Yesterday the Horses were exhibited. The number was large, of the most improved blood in the country; furnishing evidence of the attention which is paid to the improvement of the stock of the state. We venture to assert that if there is now (which is questionable) a state in the union, which can boast of more stock, of finer form, &c. than Kentucky, it will not be the case in a year or two. The improvement has been rapid, and is still progressing.—*Lexington (Ky.) Obs. & Reporter.*

CHINESE MULBERRY TREES AND CUTTINGS.

THE best varieties of CHINESE MULBERRY, (*Morus Multicaulis*) from France, Italy and China, of one, two and three years' growth, may be had in large or small quantities, from S. WHITMARSH's extensive collection, and forwarded to any part of the United States, according to order, with directions for propagation.

It is confidently believed, that the present mode of culture adopted by us, will prove a certain and secure protection against the severity of winter, and the best method by which to increase the foliage and multiply the number of trees.

All orders directed to the subscriber, will receive immediate and faithful attention.

In behalf of S. WHITMARSH,

DANIEL STEBBINS.

Northampton, Sept. 7.—20

St.

NEW CHINESE MULBERRY,

Or *Morus Multicaulis* Trees and Cuttings, for sale.

THE SUBSCRIBER has a large stock of these trees, very thrifty well rooted plants, 2 to 5 feet high, raised in this country, under his superintendence, which would be sold according to size, on pleasing terms, and carefully packed and forwarded to order to any section of our country.

And from six years experiments in cultivating this tree, he is decidedly of opinion, that there is no tree so well calculated to raise silk. Any information relative to its culture, will be furnished to purchasers if requested.—Also the Italian white mulberry 2 to 3 feet, very cheap.

ROBERT SINCLAIR,

Clairmont Nursery, near Baltimore.

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DAHLIAS.

THIS Splendid Flower has but recently been introduced into this country, and consequently but little known, and although I have mostly devoted my attention to the culture of articles of the most useful class, yet flowers are not without their usefulness; the more we adorn our yards and gardens with flowers, and useful shrubs and trees, the more we increase our love for home, the spot alone where true happiness is to be found; and having cultivated this flower rather extensively for three or four years, I am enabled to judge of its merits, and think the various beautiful colors and shades, large size of its flower, long continuance in bloom, and ease of culture, are properties deserving the notice and culture, not only of the wealthy, but also of every cottager in the country.

It is only necessary to see one of them in full bloom, containing at one time from 10 to 30 flowers, from 3 to 5 inches in diameter, to become an admirer of it, especially when we see a group of them of all colors, stripes and shades. They commence blooming here the middle of June, and continue until frost.

For further information, I herewith add an extract from J. C. Loudon's Practical Gardening, published in London, 1827—since then they have been very much improved in many respects.

"The roots of the Dahlias are tuberous, and fasciculated, the stems rise from 5 to 8 feet, covered with large compound leaves, resembling those of the Dwarf Elder, and with side branches bearing numerous flowers of a great variety of colors, which appear in August, and continue until frost; the plant grows wild in Mexico, in sandy meadows, and was sent to Madrid in 1789—from thence to France, Germany, and England; at present the Dahlia is the most fashionable flower in this country, and the extent of its culture in some of the nurseries is truly astonishing, especially in that of Lee; nor is this to be wondered at, as Sebline observes, for, independent of the great beauty and diversity of the flowers, they are in perfection at a season when, till they came into notice, our gardens had but little ornament."

CULTURE.—Plant the roots, or potted plants, into the garden as soon as received, any time between the first of May and middle of June, in rich well prepared ground, 3 to 4 feet apart, unincumbered with shrubs or other plants, each plant must have a stake planted with it 18 inches deep and 5 to 7 feet high, according to the height of the plants, and tie up the plants to it as they grow.—Take up the roots after the tops are killed by the frost, and after drying them a few days, pack them away in a cellar in dry sand or mould, safe from frost. Priced catalogues of potted plants and roots of this flower, can be obtained gratis at my Nursery, or at the Maryland Agricultural Repository, Light st. Baltimore.

ROBERT SINCLAIR.

P. S. Samples of these flowers may be seen at the horticultural room, and our store in Light st., or at the Nursery, where there is the most extensive, and best bloom that ever has been in this State—to see them the citizens of Baltimore are respectfully invited. R. S.

POINTERS AND MASTIFFS.

TEN Pointer pups about 4 months old, of good strain —warranted genuine.

ALSO—4 Mastiff pups, considered above all others, the most faithful watch dogs.

The above pups can be procured by any persons wanting either of them, by application to the editor of the Farmer and Gardener, Baltimore.

All applications by letter, must be post paid.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs.	6 75	8 00
CORN, yellow,.....	bushel.	95	97
White,.....	"	92	94
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	18 1/2	20
Louisiana 19—Alabama	"		21
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.		1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	
Do. do. baker's,.....	"		
Do. do. Superfine,....	"	9 50	9 62
SuperHow. st. in good de'd	"	9 25	9 50
" wagon price,.....	"	9 00	
City Mills, extra,.....	"		9 50
Do.	"	9 00	9 25
Susquehanna,.....	"		9 25
Rye,.....	"	5 75	6 00
Kiln-dried Meal, in hhds.	hhd.		20 00
do. in bbls.	bbl.		4 50
GRASS SEEDS, red Clover,.....	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	2 25	2 75
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.		20 00
HEME, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	8 25	8 50
Slaughtered,.....	"		
Hogs—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"		
OATS,.....	"	43	45
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.		3 25
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	102	110
Susquehanna,.....	"		
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrapper, suitable	"		
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	2 20	2 33
Red, best,.....	"	2 00	2 05
inferior,.....	"	1 50	1 80
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	
To Wheeling,.....	"	2 00	
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 63	30 32
Full Merino,.....	"	48 53	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.....	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,.....	"	38 40	26 28

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

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BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	15	16
Shoulders,..... do.....	"	13 1/2	
Middlings,..... do.....	"		13 1/2
Assorted, country,.....	"	11 1/2	12 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,.....	"	20	25
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"	2 00	2 06
EGGS,.....	dozen.		12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	
No. 2,.....	"	9 50	
Herrings, salted, No. 1,.....	"	3 50	3 62
Mackerel, No. 1,..... No. 2	"		9 00
No. 3,.....	"		5 00
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virginia.....
Other Branches,.....	do	Bank of Virginia,.....
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	do	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... do
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,....	do	Bank of the Valley,.... do
Salisbury,.... 5 per ct. dis.		Branch at Romney,.... 1
Cumberland,..... 1		Do. Charlestown,.... do
Millington,..... do		Do. Leesburg,..... do
DISTRICT.		Wheeling Banks,.... 2a2 1/2
Washington,.....		Ohio Banks, generally 3a3 1/2
Georgetown,.....	Banks, 1.	New Jersey Banks gen. 1 1/2a2
Alexandria,.....		New York City,..... 1a
PENNSYLVANIA.		New York State,.... 2 1/2a3
Philadelphia,..... 1a		Massachusetts,.... 2a2 1/2
Chambersburg,..... 1a		Connecticut,.... 2a2 1/2
Gettysburg,..... do		New Hampshire,.... 2a2 1/2
Pittsburg,..... 2a2 1/2		Maine,..... 2a2 1/2
York,..... 1a		Rhode Island,.... 2a2 1/2
Other Pennsylvania Bks. 1 1/2a2		North Carolina,.... 3a3 1/2
Delaware [under \$5].... 3a4		South Carolina,.... 3a3 1/2
Do. [over 5]..... 1a2 1/2		Georgia,..... 3 1/2a4
Michigan Banks,..... 5a		New Orleans,..... 6
Canadian do..... 5a		

FOR SALE

AT Clairmont Nursery, one Sow and Boar of the thin Rind breed of Hogs, the first about 2 years old, and the latter 1 year,—a rare chance to get at once into this breed—Price \$25. Also a few pairs of Barniz Pigs, and large Westphalian White Geese—the first \$10 a pair, and the latter \$5—coops, feed, and drayage, 75 cts. each.

ROBERT SINCLAIR.

P. S. \$2 each will be given for a few full grown Hen White Turkeys, pure blood and unmixed, delivered at our Store in Light street.

R. S.

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

R. SINCLAIR, Jr.

Light near Pratt st. wharf.

A GARDENER WANTED.

A single man of undoubted character for sobriety, industry and honesty, and who has a thorough knowledge of gardening—who is competent to manage a large garden, pleasure ground, and hot house, and to discreetly superintend several hands that would be placed under him—will hear of a permanent situation in the South, where the climate is both healthful and delightful.

Apply to the Editor of the Farmer and Gardener, Baltimore.

All applications by letter must be post-paid.
aug 30

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st. whf.

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st. whf.

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S'raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 22.

BALTIMORE, MD. SEPTEMBER 27, 1836.

Vol. III

THIS publication is the *successor* of the late
AMERICAN FARMER,

and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, SEPT. 27, 1836.

THE HESSIAN FLY.

As the ravages of this insect during the late wheat season, were severely felt throughout our country, and the toil, labor and expense of thousands of high-minded and virtuous farmers were rendered comparatively unavailing by them, we feel inclined to publish every thing which may be written upon the subject, leaving it to the common-sense of our intelligent readers, to determine the relative degree of credit that should be attached to the theories and facts that may be adduced by the writers, pro and con, which may respectively appear. The most approved theory which has obtained credence in Europe goes to impress the belief that the Hessian Fly deposits its eggs upon the grain of wheat, and hence the recommendations of mediums of destruction to this insidious foe, by means of various *soaks*.

There are however other observing writers both in that country and this, who array numerous facts to show that the deposite of eggs is made on the lower joints of the stalk. In England it has been strongly recommended, by sensible agriculturists, to burn the *stubble*, and this same process is also recommended by Dr. Wm. L. Horton, of Harford county, Maryland. Whether the *ova* be deposited on the grain of wheat, or upon the stalk, it appears to us as being obviously the dictate of duty, that every possible agency which can, should be resorted to to put an end to an enemy so fruitful in destruction, and that wherever it be possible to do so, that the *stubble* should be burnt as recommended, and that in addition to this precaution, that it would be good policy to submit the seed wheat to some of the various *soaks* recommended, for whether the process of soaking will destroy the nit or egg, or no, there can be no doubt but that the germination of the seed, and the growth of the plant would be greatly accelerated,—and these results

we all know are highly important to the young plants in the incipient stage of their growth, both as a protection from the insect tribe, and from winter-killing. We insert to-day a well written communication, which we copy from the Winchester Virginian, and ask for it a careful reading.

BREAD STUFFS.

Agents are said to have arrived in Liverpool and commenced buying up wheat for the American market. The Philadelphia Sentinel says that this, though of rare occurrence, has happened twice within the recollection of the editor.—*Balt. Amer.*

It will be seen by the above paragraph that the failure of the wheat crop in our country has given a spur to mercantile enterprize, and that the deficiency in our own crop will likely be made up by importations from Europe. This will act as a most seasonable relief to the people at large, while all the wheat which can thus be received cannot possibly prevent farmers from getting good prices for their produce; for of a verity there is no period within 30 years, that we recollect of, when there has been so marked a failure of the wheat crop,—and from our public as well as private advices, we are led to believe that the corn crop will prove nearly a failure, it being less than half an average one throughout the country. The rye crop, all admit, has likewise been a disastrous failure except in some districts, which are too limited in extent to exert any thing like a counteracting influence upon the general scarcity of bread-stuffs, that all apprehend.

Since penning the above we find the following in the New York Journal of Commerce.

"PRICE OF BREAD STUFFS.—We would not needlessly interrupt the enjoyment of those who look forward to the next winter as a general starvation. But lest their dreams should be too suddenly broken we must call their attention to the facts contained in the last news from Europe respecting the price of bread stuffs there. We happen to know of an operation at Liverpool, by which 50,000 bushels of wheat are to be immediately forwarded to this country, and by the prices which are published, there is little doubt that much larger supplies will be soon forthcoming for the long continuance of high prices, the successful issue of the recent importations, and the fact, well ascertained, that our domestic sup-

plies are inadequate to our wants, will give new confidence in future operations. Let us see at what prices we can be supplied.

"In Paris the price of bread is about 2 cents, and in London 3 cents per lb. We found a shilling loaf in New York yesterday to weigh 2lbs. 3 oz., which is nearly 6 cts. a pound. The price of wheat in Paris is 112 cents a bushel, and the price of flour \$5 a barrel. In the ports of the Mediterranean, in London or Paris, the price of good wheat at Naples is 2s. 10d. sterling a bushel, or 65 cents. From any one of these places freight may be obtained at 33 cents per barrel on flour, and 12 1-2 cents per bushel on wheat, or about half the rate charged on transportation of the same articles from Rochester, and one-fourth of what is charged from Ohio. Fifty thousand bushels of corn have been received here from Ohio by one house, at a freight of 49 cents. The duty on flour is one dollar a barrel, and on wheat 25 cents a bushel. Wheat, therefore, can be imported from Naples and laid down in New York at 125 to 135 cents a bushel, all charges paid, and from a hundred other places at the same or a less price. Corn and rye are not burdened with a duty, and may be imported to great advantage. The countries of Europe and Asia afford stores of bread stuffs almost inexhaustible, so that the supplies for this country, if they should run to the highest possible quantity, could only affect prices in a very slight degree. Free trade will supply all our wants and the cost, with a liberal mercantile profit, will not carry prices above 150 cents for wheat, 100 cents for rye and indian corn, 50 cents for oats per bushel, and \$7 50 for flour per bbl. So let the desponding cheer, for no one who is industrious and frugal need starve in 1836 or 1837.

The following which we also copy from the Baltimore American establishes the fact of the price of wheat being low at Maderia on the 3d ult.

Extract of a letter received in this city from Maderia, dated 3d August, 1836.

"Wheat by retail, 95 cts per bushel; do by cargo, 85 a 90 do; Indian Corn 70 a 75 cts. do."

We are truly glad to perceive the name of the Hon. Horace Binney, of Philadelphia, as President of the Pennsylvania Horticultural Society, in company with those of several gentlemen of the highest standing, as subordinate officers. It is proper that such men should lend the aid of their names to promote the success of such institutions. We are told that such is the enthusiasm of the Philadelphians on the subject of Horticulture, that the receipts of a single exhibition amounted to more than \$1200—here there is scarcely enough received to pay current expenses.—*Baltimore American.*

(For the Farmer & Gardener.)

THE GRAPE CULTURE.

As there are many pro forma descriptions of the cost and the proceeds of a vineyard, I would like to add one to the number taken down from actual experiment, or from results which are obtained from the natural course of business added to an experience in the cultivation of the vine. I have overlooked descriptions of the cost and returns from a vineyard, which made my heart leap with joyful expectations, but experience shows that too much of these theoretical calculations is falsified. The following, I think, can be relied upon by any one proposing to cultivate the vine.

FIRST YEAR.

Cost of ground per acre \$40 [or \$20 to 30 for ground, and 10 to 20 for manure,] \$40

The Catawba, Isabella, Constantia, and other native vines throw out long shoots, with much foliage, and therefore, the rows are best about 9 feet apart, and each vine 5 feet apart in the row. This gives 996 vines on the acre, to obtain which, 1200 cuttings must be planted at \$3 per hundred, 36
Planting, cultivation, &c. 20

Cost first year per acre, 96

SECOND YEAR.

Interest on first year, (nearly) 6
1000 rails for stakes, (chestnut or oak.)
Chestnut rails last as stakes 12 years:
oak rails about 8, 65
Fixing stakes, cultivation, bending, 20
\$187

THIRD YEAR.

Interest, 11
Cultivation, 10
\$208

Thus a vineyard will cost \$208 per acre previous to its bearing. Now the building and fixtures necessary for making and preserving the wine are to be added. A vineyard of 5 acres will require a cellar of 30 feet, by 20, and at least a frame building the same size above the cellar of one story in height. A cellar and frame building of this kind will cost about \$500. The vats and press will cost \$150. Thus \$650 must be added to \$1040; the cost of five acres of vineyard amount to \$1690: and divided by 5 we have \$338 dollars as the expense of one acre of vineyard. And without a person has hands hired for other cultivation, and has horses, carts, ploughs and manure without hiring or buying, the expense per acre will considerably exceed \$338.

As to the produce of a vineyard I think experience will henceforth demonstrate, that taking one year with another, not more than 200 gallons of wine can be pressed every vintage from one acre. For the last 5 years I doubt whether any vineyard has yielded even to that average amount: for in 1831 a heavy frost in May nipped the shoots just springing forth: in 1834 the same thing occurred to a greater degree: in 1835 the

last year's wood was winter-killed to a great extent; and in 1836 the excessive rains in June when the vines were flowering have deprived the cultivator from one third to one half of his crop. Calculating the average expense per acre for ten years for propping, pruning, manuring, &c., the vines, and for gathering, pressing and fermenting the produce, together with the price of casks and other necessary and contingent outlays, we have per year about \$60

To which add interest on the cost of vineyard, (\$338,) 20

Thus \$80 must be paid by the cultivator for 200 gallons of wine or 40 cts. per gallon. Now the cultivator should receive at least 100 per cent on all outlays, otherwise he had better cultivate wheat and corn which yield more than this amount without one half of the trouble of the vine. Therefore wine is not worthy the attention of the cultivator, without he can obtain 80 cents per gallon for it when new, and about 100 cents when kept 2 or 3 years.

Now the best *Catawba* wine 3 years old is worth \$1 per gallon to make it, and I am certain that for wholesomeness and fine flavor this kind of wine is better worth a dollar the gallon than 9-10ths of the wine of the same price to be found in the wholesale wine stores. I mention particularly the *Catawba*, because that variety of grape seems to me to be the hardiest, and to make a wine of better body and flavor than any other kind, and in this opinion I am supported by the declarations of the late Major *Adlum*, who for many years experimented with a number of varieties of grape vines. A three years old *Catawba* wine is certainly a beverage of a very superior kind; but excellent wine can be made out of the *Bland*, *Isabella*, and *Alexander*.

The conclusion I draw are these, that if 80 cents a gallon cannot be obtained for wine the cultivator had better employ his capital in raising grain. This statement will make theoretical calculators start, but, it will be borne out by the experience of

A PRACTICAL MAN.

NEW-YORK CROPS—EARLY FROST—

DRILL HUSBANDRY, &c.

THREE HILLS FARM, NEAR ALBANY, }
Sept. 17th, 1836. }

To the Editor of the Farmer & Gardener—

SIR:—Since I saw you at Baltimore last spring I have relinquished the hotel in the city and retired to my farm, three and an half miles west, on the great western turnpike.

The season, so far, has been remarkably cold and inauspicious. The spring was very backward and wet, which rendered it impossible to get in our seed as early as we could wish by about two or three weeks. Owing to the extreme wet, my corn and potatoes, in low ground, rotted and did not vegetate. To this succeeded a severe drought which has retarded the growth of corn and root crops, generally, and to cap the climax, on the 21st of August we had a frost severe enough to nip the tops of our corn in the low places, as well as beans, potatoes and pumpkin vines. On the 24th we had another frost, which froze the tops

of young clover. On the 2d inst, we had another slight frost, since which we have had warm and pleasant weather, with an occasional shower of rain, which has given our pastures a green and healthy appearance.

We were much favored, however, in having good weather in harvesting our hay and grain. My barley turned out well, having, for the first time, put it in with a drill, which I conceive superior to the common practice of sowing broadcast. The broadcast system is a less perfect and less economical mode of cultivation than that of drilling; for the seed cannot be deposited in the soil with the same exactness, in regard to depth and regularity. With the drill, any desired quantity of seed may be sowed to the acre. In light and open soils, drilling has the important advantage of giving the grain a good hold of the ground, and giving all the seed the same depth of soil, by which the frost is prevented from throwing out the plants in spring, or the wind from loosening the roots. I used the Norfolk drill, figured in Loudon's Encyclopedia of Agriculture, No. 340. It sows eleven rows at once, about four inches asunder, drawn by two horses, one before the other. It cannot be used on a very uneven or hilly surface, nor where the soil is too full of stones or stumps. It is also used for putting in Broom Corn, Mangold Wurtzel, Beets, Carrots, Ruta Baga, and any other small seeds, placing the rows at any required distance, from four inches to six feet.

My Oats grew too rank and large to yield well, much of it having lodged before heading.

Potatoes have suffered very much from the drought, of course the produce will not be great, more particularly those planted late.

My Corn promises a fair crop, notwithstanding all the difficulties it has had to encounter, viz. wet, cold, grub, wire-worm, crows and frost.

I forgot to mention, in turn, that my hay-crop was a good one, having got in one hundred and thirty-seven large loads, supposed to be at least one hundred tons of good hay.

Although my pastures have been poor in consequence of the severe drought, my cattle and sheep have done well. My Down sheep are, as usual this time of the year, quite fat. My Bakewell or New Leicesters are also in fine condition. I have sold all my Down bucks except a few lambs—I have two three-year, one yearling, and six Bakewell buck lambs and twenty-five ewes for sale. I have also ten "old fashioned" merino bucks, descended from the famous stock of the late Chancellor Livingston and Col. Humphrey, some of them having sheared in June 7½ lbs. of clean washed wool, worth from 60 to 70 cents per lb.

The cuts I promised you shall be forwarded as soon as I can collect them together.

I am now engaged in building my Piggery, which, when completed, I think will combine more convenience and economy than any one I have seen or heard of. It is 120 feet long—in the centre of which is a boiling house 20 by 25 feet, containing a granary in the second story and a vegetable cellar underneath. That part designed for the pens are 50 by 18 feet. The pens will be 8 by 13 feet, with a passage in front of four feet, besides the feeding trough. Should it meet my expectations, I intend to give a draw-

ing, with a description of the same, so that others may profit by my experience.

Respectfully, yours,

CALEB N. BEMENT.

From the Virginian.

HESSIAN FLY AGAIN.

Messrs. Editors:—In reading the Virginian of the 6th instant, I observed a dissertation upon the subject of the Hessian Fly, written over the signature of "A Farmer"—from whose views on that subject I must beg leave to differ. The writer alluded to says, the fly deposits the eggs or nits on the apex or tip of the grain of wheat—and that a certain degree of moisture and warmth, when the wheat begins to vegetate in the ground, brings those eggs or nits to life, as small worms or maggots, in which state they destroy our crops. Query—How, or by what process is this maggot, egg, or nit, translated from the grain of wheat (the tip of it, as described by the writer) to the position and location they invariably occupy until they take wings and fly away? By whom was the nit, egg or maggot, ever seen to move except involuntarily, before they had gone through the flaxseed or chrysalis state?—thence assuming wings preparatory to its basking in the sun (apparently its genial element); then, according to the law of its nature, after sporting awhile in all the spirit and merriment of nuptial frolic, deposits its eggs or nits, and thus provides for a continuance of its progeny.

I will now state to my brother farmers my views concerning the manner in which, and the place where, the fly deposits its eggs.—it is emphatically on the *blade* of the wheat, (after it has been out of the ground for several days).—When the wheat first comes up, it has only one straight and pointed stalk or spire; in a few days one blade unfolds itself upon one side of the stalk, and shortly after another blade appears from the other side, a little higher up the stalk than the first—each of them inclining off from the stalk and spreading themselves out, leaving a small orifice or vacancy between the stalk and the blade. The under parts of those blades are perfectly smooth, and no ways calculated to receive the eggs or nits of the fly in safe keeping; if they were washed off by the dews or rains they would fall immediately upon the ground and perish. Hence, by instinct, they know better than to deposit their eggs here. The upper part of the blades above described are fluted, with several beautiful flutes or cresses; and in those little flutes or cresses the fly deposits the eggs or nits—precisely such eggs or nits as "A Farmer," describes as deposited on the tip of the grain of wheat—very small brown specks, requiring the aid of spectacles to an eye advancing in age to see them, though very perceptible to a young and vigorous one.

The eggs or nits thus deposited on the upper part of the blade, the first heavy dew or shower of rain, are carried down between the blade and the stalk to the position where they are always to be found, between the blade and the lower joint of the stalk of wheat. Below the lower joint they are never seen. Last fall, as soon as my wheat came up, (having sowed pretty early,) or rather as soon as the two first blades were

formed, I put on my spectacles, took off the blades carefully, examined them, and found in these little flutes from ten to fifty eggs or nits—marked the location of those stalks of wheat from whence I had taken the blades, leaving some standing with eggs or nits in abundance on them. In a few days I returned to the spot, (a little rain had fallen in the meantime,) and upon examining the blades which were full of eggs on my first visit, found none; but upon stripping down the blade, I found they had been washed down between the blade and stalk to the lower joint of the wheat, where we at all times find them when they are in being.

There is no mistake in the above history of this destructive insect; and from the description given of the appearance of the egg or nit of this fly by "A Farmer," I am willing to believe they may also deposit as he states. But I should feel myself very secure from their ravages or depredations, were they invariably and universally to deposit their eggs on the tip of the grain of wheat, because I should be sure they would perish with the grain of wheat, which certainly rots and disappears altogether.

The grain is frequently put into the earth at seed time from 1 to 4, 5 or 6 inches deep; the sprout pushes itself through the earth, leaving the grain where it was deposited, and the eggs or nits of the fly with it—and consequently they must perish—all, at least, that are deposited on the grain. The germinating principle of the wheat is principally to be found and sustained under the influence of heat and moisture; hence we find the joint of the wheat (the lower joint) is formed near the surface of the earth; it seeks no connection with the grain of wheat. The grain of wheat having sent up above the surface one sprout, it has done its office, and, as before stated, dies and rots. New roots and new sprouts are now formed in abundance, from the germ which is now formed near the surface of the earth, entirely cut off and disconnected from the original progenitor, which returns to mother earth.

I conclude from the above history of this insect, which I have no doubt is a correct one, that in vain may we seek a remedy by washing, soaking, scalding, or any other application which may be made to the grain: yet, in proportion to the quantity and the fitness of character of the stimuli used in the washing, soaking or rolling, or whatever way applied, in the same proportion will the plant of wheat be invigorated, and thereby better prepared to resist the action of the fly. The remedy against the ravages of the fly, I believe, is only to be found in stimulating the land to early and quick action. Let the farmers turn their attention more to their farm-yards—manure their lands better—and then, with the blessing of Heaven (early and late rains), we shall be more successful in cropping.

A SUBSCRIBER.

Farmers in the neighboring counties who have any thing fit to bring to market, from a corn-field negro to a sweet potato, should hasten hither. If a high price be an inducement, they have seldom had such encouragement to come, and nothing edible, potable or wearable, can come amiss.

Newbern, N. C. Spectator.

To the Editor of the Tennessee Farmer—

Grant me space in your columns to communicate to the public the results of my experience in farming. I have been trying to farm for twenty years, nineteen of which, I persisted in my own course, unaided by agricultural papers or by any systematic rule; consequently my improvements were small. The last year I subscribed for the Tennessee Farmer, and searched, read and examined it, and other authors,—entirely turning my attention to *Book Farming*—and I freely acknowledge, that the improvements I have made during that period, have far exceeded those of the nineteen previous years: and I return you my sincere thanks for your aid—though I have not acquired all my knowledge from your paper alone, yet I have been materially benefitted by it, inasmuch as it begat in me a spirit of enterprise and a desire for improvement. As I have derived great benefit from the knowledge and experience of others, I think it my duty in return to furnish them with the results of my experience, soliciting an enlightened community to pursue an improved and systematic course of agriculture, assuring them, that they will find the profits resulting therefrom amply sufficient to compensate them for their labor and toil. I must, however, confine my remarks to a few only of my experiments.

In the year 1822, I purchased a farm of 354 acres, 125 of which was cleared. The land was once good second rate land, but was now completely worn out. Being greatly indebted for my farm, the idea of improving the cleared land never entered into my mind; but I set to work opening fresh land, until I had enlarged my cleared land to 225 acres: this I continued to cultivate in corn, until a part of it was so far exhausted, that I could no longer cultivate this crop profitably.

In the spring of 1833, I planted two acres of my land in corn, (this two acres was about equal to the balance of my cleared land) on which I raised 20 bushels to the acre; the corn was worth 25 cents per bushel, amounting to \$5; the cost of cultivating was \$7, which left me a profit of \$3. The following year it remained uncultivated. The next fall I sowed it in wheat. The following spring I hauled out ten tons of good stable manure, which I spread over one acre. At harvest I gathered from the two acres nineteen bushels of good wheat, which brought me the sum of \$16.62½. The cost of the crop, I estimated at \$6.62½. The manure say was worth \$10, which brings the account out even. In the spring I sowed orchard grass and clover seed. The succeeding spring I sowed over the grass a quantity of plaster and ashes; the result was, from the manured acre I mowed 5 loads of hay; from the one not manured, I mowed 2 loads; each load was worth at least \$5, consequently, the manured acre yielded me \$25 worth of hay, the unmanured acre only \$10 worth. The cost of harvesting the manured acre was \$1.50, plaster, &c. 50 cents, making \$2. Profit, 5 loads of hay at \$5 per load, \$25, leaving a clear profit of \$23 on the manured acre. The cost of harvesting the unmanured acre was 75 cents; plaster, &c.

50 cents; making \$1 25. Profit, 2 loads of hay at \$5 per load, 10 dollars, clear profit on this acre only \$8 75—difference of profit in one year in favor of the manured acre, \$14 25.

I have this year made three experiments in my wheat field to ascertain what kind of manure is best suited for wheat. I applied barn yard manure to one spot, barn manure and lime mixed on another spot, and on a third spot, I applied lime alone. I have tried other experiments with barn manure, and from my experience I am fully persuaded, that lime or calcareous manure is the best for wheat. I am about trying the efficacy of clover and buckwheat, ploughed down, as a manure. I intend sowing wheat in the clover, and rye in the buckwheat field.

To furnish putrescent, or animal manures for all our worn out fields would require immense labor and expense. If lime will answer the same purpose—and I believe it will*—we should not much longer complain of poor land; for in this country, we have an abundance of the best limestone and timber—and now, all that is wanting is knowledge and industry in the preparation and application of it to our lands; in both of these particulars, we must admit we are sadly deficient. We have but two alternatives, either to improve our lands, or to sell and go west, where Providence has furnished a richer soil.

Suppose, for a moment, my whole farm to be as rich and as well cultivated as that one acre, (and I might have had it so if I had began to improve when I first purchased) what would be the profit of it yearly? If on that one acre I made a profit of only \$30, (and I am satisfied I will make more when the second crop is taken) my whole 225 acres would then yield me a profit of \$6,750, a sum greater than I can sell the farm for, and more than I have ever made on it since I owned it.

But suppose a clover crop to be twice as valuable as any other, I would still have \$3,375. I will now deduct one-half of that amount for pasture land and failure of crops, &c., and I would still have a profit of \$1,687. I will now suppose that \$687 will be required to defray the expenses of the farm, I would still have a yearly profit of \$1000.

I will now give you a short account of my profit and loss for a few years.

Not being able to work myself, and having no force of my own, I am necessarily compelled to have my work done by hired hands. After I became unable to labor myself, I found that my hired hands were sinking money for me. I then resolved to keep a strict account of all my farming operations: At the end of the first year, I found, on balancing the account, that I was \$163 in debt. I examined the account, and endeavor-

* We would caution friend Peeples against an exclusive reliance on lime for manure, valuable as it unquestionably is. Nothing can justify the neglect of animal and vegetable manures, without the application of which, the permanent fertility of land cannot be obtained—but when united with the use of lime, the effect will no doubt equal his expectations: but in both cases it must not be forgotten, that to ensure profitable results judicious tillage is indispensable.—*Editor.*

ed to ascertain, if possible, where the fault lay. I satisfied myself sufficiently to make a second trial; accordingly, I dismissed my manager and some of the hands, and employed a more faithful and industrious manager, determined, if possible, to profit by past experience. At the end of the next year, when my books were compared, I found I had made a profit of \$93, a sum not half sufficient to pay the interest of the money I had laid out. A third trial is now going on, with the same manager, but more immediately under my own supervision, aided by all the knowledge I have been able to acquire from agricultural papers and other sources. I cannot yet make a fair estimate of the profits, but from present appearances, I think I shall realize near \$500. Is it not astonishing to see the number of persons who subsist by farming entirely, still continue the old land-killing system, when such profitable results are to be expected from an improved mode of tillage?

Farming is both a pleasant and profitable employment, if properly carried on. The experience of thousands have taught us this, and any thing I could say, would not make it more clear.

I have been asked by some, "what use have we for Rail Roads? our population can consume all the surplus which we now have." I answer, if we had Rail Roads, the amount would be increased to a vast extent; our interests would become more united, and the danger of a disunion proportionably lessened.

A few words more to my brethren of the plough in East Tennessee. From the great irregularity of our surface, we have a great diversity of soils and climate, requiring the greatest agricultural skill, to ensure its full developments. Clover and lime, judiciously used as a manure, will produce beneficial results, far beyond the expectation of those who have never tried them. Arouse then, brethren, to the improvement of your land, and be assured, you will reap a reward, amply sufficient to compensate you for your labor.

WM. PEEPLES.

[From the Silk Culturist.]

Mobile, Alabama, June 12th, 1836.

Mr. Comstock—Sir: I have received, and read with great attention and pleasure, your "Silk Culturist," for the last year. It is replete with useful and practical information, in relation to silk culture and manufacture. The progress made in Connecticut, and adjoining states, is a sure guarantee of success.

The south is also greatly interested in this matter, and I am under the impression that we possess some advantages over the north in point of climate; but taking into consideration the difference in the price of labor, it may make things equal. I observe that you give notice to the societies formed and to be formed in your state, that persons are entitled to receive instructions from your company. Is it possible that the enterprising young men of your state can neglect such an opportunity of receiving instruction, in a branch of industry promising such golden harvests as is offered by your company? For if the culture of silk be not sufficiently extended in the northern states to give employment to thou-

sands of your young men and women, who are or may be skilled in rearing the silk worm, and the reeling of silk, the period is at hand when the south will require their services and talents, which will command from 8 to 1200 dollars per annum, as the wages of ordinary gardeners are now from 6 to 800 per annum, and difficult to be had at any price.

I am myself an adventurer in this field of enterprise, believing as I do that the culture of silk will in a few years surpass in profit any other branch of agriculture, notwithstanding the high price of cotton. I believe also, that our planters will find it for their interests make to extensive plantations of the Mulberry, and rent them to persons who may be skilled in the management of the silk worm.

The *Morus Multicaulis* grows here most luxuriantly, and is never injured by the frost. It is propagated with the greatest facility at any season of the year, even before branches become ligneous, they will strike root and throw out foliage.

Layers may also be made at any season, by cutting the branch intended for laying off, and running the knife 4 or 5 inches along the pith of the twig, place this on the ground, and in 80 days it will have fibrous roots 6 inches long. It may then be severed from the parent plant, and divided at the place where the cut was made, leaving each a part of the roots; this will give two rooted plants, which, if three experiments prove any thing you will find that the layer whose order of nature is reversed will give from 7 to 9 plants more than that whose direct ascension of sap has not been obstructed.

My plants, 3 years old, have produced seed this year, but rather sparingly; indeed the full grown fruit does not contain more than three seeds, and it is very difficult to gather it, as it falls as soon as ripe; and the least wind causes it to drop before it arrives at maturity. My cuttings put out this year, and are now 4 feet high and the foliage so large as to bend them to the ground. I therefore take off a part of the leaves that the plant may attain its altitude, which is from 10 to 12 feet the first year. The *Morus Multicaulis* may be so trained as to produce the most beautiful effect in the parterre; and being entirely free from the attacks of all insects, is exceedingly desirable, as children may be suffered to play beneath its branches without fear of injury from the bite or sting of any noxious insect.

Most respectfully,

Your obedient servant,

CHESTER ROOT.

[From the Northampton Courier.]

CULTURE OF SILK.

From the correspondence of Gen. Tallmadge, it appears:

1. That one great source of national wealth of France, is the product of the Vineyard, under the culture of the husbandman—and the Silk worm under the fostering care of the wife.

2. That in Italy, partially, and chiefly in France, the culture of Silk is carried on by private and individual industry.

3. That a damp climate is injurious to the

silk worm—and that the culture of silk does not prosper *near the ocean*.

4. That France does not produce one-half of the raw silk which she manufactures. Her population is so dense that she cannot furnish sufficient space for mulberry trees.

5. That the warm dry summers of the inland parts of the United States are admirably fitted for the culture of silk in families, and that we shall succeed in it. *That when the leaves of different kinds of mulberries are mixed together, the worms will select and gather the Chinese mulberry.*

6. That in Europe the mulberry trees are cut off and kept dwarf, for the convenience of gathering leaves.

7. That although the Chinese mulberry is vastly superior to any other for feeding silk worms, yet from the inaptitude of French farmers to change habits, there are comparatively but few of Chinese mulberry set out in France. At this time, there are probably growing in America more Chinese mulberry than in all Europe. Even after the experience of ages, Europeans are said to act more from usage and habit, than skill and experience. The demand for mulberry in America is so great, that the French this year have sold us 100 trees where they had set out 10 for their own use.

Remarks on the foregoing.

If silk is one of the greatest sources of national wealth to France, and not land enough to grow its mulberry, and are necessitated to import raw silk, why cannot the culture become of equal importance to the wealth and prosperity of these United States, where we have land enough and to spare.

If in some parts of Europe the culture of silk is chiefly done in families and by private individuals, why cannot we do the same ourselves?—"We can and we will do it." It has already been done in Mansfield, Ct.; they have no special act of government to enable them to do it, yet they annually make and sell over 30,000 dollars worth of silk, all made in families. Even the town of Northampton, Mass., has one enterprising gentleman, who removed from Mansfield some forty or fifty years since, and brought with him a portion of the *silk habit*, and has, we are told, from only a few trees manufactured annually for 40 years not less than 75 dollars worth of sewing silk. This has been done in a *silent* and *unostentatious* manner, like other domestic employments, not sung in verse, or known scarcely a stone's throw from his residence. But how different at this time! Now, Northampton takes a prominent stand—is the very focus of silk culture,—possessing the knowledge and information necessary and requisite to the prosperity of the silk business.

If a damp location and the sea air be unfavorable to the health of the silk worm, there is plenty of room, high and dry, in the interior sections of every state in the Union, exempt from that evil. Where elevated dry soil and pure air abounds, therefore let not these advantages be neglected.

If the territory of France is so much covered with inhabitants that there is not spare room for mulberry trees sufficient for the silk manufactur-

ed there, we trust that America can never urge that as an apology, why we should not raise all the silk needed for our national use, but we hope the enterprising spirit of our people will yet enable them to export many millions to other nations instead of importing annually as we now do, about *seventeen millions* worth of silk materials. Of course, so much cash must be sent out of the country, every year to pay for it. That silk worms will select the *Chinese* in preference to any other kind of mulberry, has been well attested, and from its use more silk is obtained.

Now if we have one of the most favorable climates for the culture of silk, let us not sleep as do others, but spread the mulberry throughout our fertile vallies, and cover our granite hills.—Improve these sources of wealth which are within the grasp of yankee industry and perseverance, and instead of wandering to the "far west" in pursuit of what all cannot obtain, let us go ahead, well harnessed with silken cords, and raise an abundance of that nourishment for the silk worm, the Chinese mulberry, which is necessary to speed the reel and shuttle, whether done in family or factories.

It is a singular fact, that while in Europe, and even in China, the *garden of silk*, experience has convinced cultivators of the expediency of heading them down or cutting off the mulberry every year, for the convenience of gathering foliage,—that, at the same time, we have adopted the same method, not only for the same purposes, but also for augmenting the foliage, propagating the trees, and as a certain and sure protection from the severity of the climate.

As Europeans are trammelled by the habits and customs of their predecessors, so are we.—We have our corn and other crops, the culture of which has been transmitted from father to son ever since the settlement of the country; and having such veneration for our father's habits of industry and sameness of crops, although twice the profits might be had from other crops. But these prejudices are fast giving way to the light of science and agricultural improvements, aided by the press and publications of the day.

SILK CABINET.

A new invention for brick making has been patented by one Sawyer. The bricks are made by it from dry clay, and are said to be superior to the common kind in beauty, strength and durability. The texture is much closer than that of the common brick, so that the article absorbs less water, takes paint much better, not requiring more than one-half necessary in the old way, and stands fire much longer. The frost likewise does not operate on it, and brick are turned out of the new machine, at one-half the expense, or less, than by any other mode now in use.

Pennsylvania paper.

A PROMISING SILK COMPANY.

The *Massachusetts Silk Company* was incorporated at the last session of the Massachusetts Legislature, with a capital of \$150,000. On receiving the Act of Incorporation, they immediately organized and chose Mr Joseph R. Newell, of the New England Agricultural Warehouse, President.

They subsequently purchased the fine farm in

Framingham, lately belonging to Col. N. Fisk, containing 136 acres, and have made an addition of about 25 acres, by purchasing an adjoining lot. They have 78,800 white mulberry trees, 7,300 of the *Morus Multicaulis*, now in a flourishing condition, on the farm, besides a seed bed of 2 acres sown to White and Chinese Mulberry trees.

The *Morus Multicaulis* trees, on replanting were laid so that the propagation therefrom will triple or quadruple. Between the rows of trees, potatoes were this season cultivated, and the overseer estimates that he shall produce upwards of 1000 bushels. 45 tons of hay were cut from the farm this season, from ground not yet broken up and employed in the culture of the mulberry trees.

From the above, which was furnished us in substance from Mr. Brown, Treasurer of said Company, as well as from personal inspection of the Farm, &c. we are happy to perceive that the affairs of the Massachusetts Silk Company wear a promising aspect. On the 1st inst. the editor, in company with a number of other stockholders in the concern, made an excursion from Boston to Framingham, on the Worcester Rail Road, to view the above mentioned premises. We were much pleased with the Farm, and its improvements. The situation is pleasant, about two miles from the Rail Road; the soil a light fertile loam, precisely adapted to the culture of the mulberry. At each end is a swamp from which mud in any quantity may be taken, and will prove valuable for manure. In short, every thing on and about the premises exceeded our expectations, and the little stock we hold in said *Massachusetts Silk Company*, has (in our estimation) risen a hundred per cent. in value since we viewed the Company-Farm, and learned its natural advantages and capabilities of improvements, and perceived that every object relating to silk culture indicated correct management.—*New Eng. Farmer.*

SILK CULTURE IN KENTUCKY.

Extract of a letter from one of our subscribers in Danville, Kentucky:

"I, as well as many others in our state, are engaging in the culture of silk. Some silk has been raised in our state for 12 or 14 years, from the native mulberry, which is very abundant, and makes silk of good quality. I have from 25 to 30,000 plants of the white mulberry growing from the seed sown last spring. They are very flourishing, and I have no doubt but will do well in our climate. I shall procure a few thousand of the *Morus Multicaulis* this fall and next spring, and extend my native mulberries to several thousands, believing, from some little experience and observation, that as good silk can and has been made from that tree as we ordinarily see in the market. I shall feed from 4 to 600,000 worms next year on the native mulberry, which is the best evidence I can give of my confidence of its answering every purpose, and making silk of good quality."—*Gen. Farmer.*

From the Genesee Farmer.

LIME.

An additional fact in relation to the fertilizing quality of lime seems to be rendered very proba-

ble, if not certain, by some experiments which have been recently made in this town. A Mr. Moore in digging a well hit upon a formation of soft or friable limestone combined with fossil shells of great diversity of formation. Specimens were sent in different directions and there was but one opinion among those who tasted them, that it was a limestone formation. A bed of gypsum is very valuable. Mr. Moore and his neighbors appeared determined to believe that they had discovered a valuable gypsum formation on their farms. They sent wagon loads to Plaster mills and Grist mills, and caused what they pronounced gypsum to be spread on a great number of fields, during last fall and this spring.—The results have been in every instance that the clover, wheat and spring crops have been essentially benefitted by the application; and Mr. Moore and his neighbours still believe the substance which they are selling as gypsum surpasses in efficacy, either the Wheatland or Cayuga plaster. That this formation is equally efficacious with the plaster which is generally used in this section of the State, there seems no reason to doubt, and that it is a limestone formation is beyond the possibility of doubt.

It is impossible that the mechanical operation of grinding or pulverizing crude or unburnt limestone, renders it equally fertilizing with gypsum?

It appears difficult to avoid this difference.—Mr. Moore has erected a wind-mill,—is digging and vending what he calls plaster, in great quantities; and the farmers from hundreds of experiments entertain the most entire confidence in its efficacy.

With a view of obtaining some additional facts on this subject, which in its present stage, is a little perplexing, a person called on Mr. Moore with a vial of muriatic acid in his pocket. Mr. Moore showed him specimens of Chittenango, Cayuga, Phelpsstown, and Wheatland plaster—each of these specimens effervesced on the application of the acid. This fact seems to add to the perplexity of the subject, and would appear to indicate that we are using (and certainly deriving great benefit from the use) a certain description of limestone but which is not gypsum. If this is a fact it goes to confirm the idea that limestone in a pulverized state is equally fertilizing with gypsum.

The subject is important to the farming interest, and certainly merits further investigation. It would not be difficult to erect machinery which would crush the hardest limestone and prepare it for grinding in a common plaster mill.

Worth Remembering.—We have been informed by a gentleman who has had practical proof of its success, of a new mode of keeping fruits fresh for the table, as grapes, plums, &c. a long time after they have been gathered. It is simply to alternate them in layers with cotton batting, in clean stone jars, and to place them in a chamber secure from frost. The discovery was accidental. A servant maid in the family of Wm. Morey, of Union Village, Washington county, about to visit her friends, secured a quantity of plums in this way, to preserve them till her return. They were found to have kept in excellent condition, long after this fruit had disap-

peared in the garden. From the hint thus afforded, Mr. Morey, Mr. Holmes, and one or two neighbors, laid down grapes in this manner last fall, and they enjoyed the luxury of fresh, fine flavored fruit through the winter, until the early part of March.—*Cultivator.*

Caution to Sheep-Breeders.—Several instances having recently occurred in the neighbourhood of Higham, of lambs having died suddenly, it has been discovered, upon opening them, that it has been owing to their imbibing wool with their milk, and which may easily be prevented, by cutting off the loose wool near the teats of the ewes in due time.—*Yankee Farmer.*

New Plough.—We have received notice, (says the Cultivator,) of a material improvement in the plough, made by Thos. Midford, of Hyde Park. The advantages of this improvement, over the common plough, are represented by our correspondent to consist,—1st, In requiring but half the power of a common plough to propel it. 2d, The facility with which it may be regulated, as to breadth and depth of furrow-slice. 3d, In requiring no one to hold or guide it, except to enter it at the ends of the furrow, which may be done by the team-boy. And 4th, In performing the work better than any ploughman can do it with the common plough. Such are the advantages, as represented to us. If it possesses half of them, Mr. Midford has effected an important improvement.

To promote the growth of Trees.—Some separate the dry bark of fruit and forest trees, to promote their growth and prevent the bark binding too much. This disfigures the tree, making seams in the trunk, and makes it grow in angles. The best way is, when the sap is forced up by warmth of spring, to scrape off all the scaly particles of the dead bark, and wash the trees repeatedly during the week with soap-suds, &c.—Trees of considerable age will then have a youthful appearance, be more thrifty; and, in case of fruit trees, the fruit will make more cider than that grown on scurvy moss-grown trees.

Put cinders, bones, and stones, about the roots of pear-trees; it will increase their growth one-third, and save them from blight.—*Genesee Farmer.*

Antidote against Mice.—Mr. Mackdonald, of Scalps, in the Hebrides, having some time ago, suffered considerably by mice, put at the bottom, near the centre, and the top of each of his stacks of grain, as they were raised, 3 or 4 stalks of wild mint, with the leaves on, gathered near a brook in a neighboring field, and never after had any of his grain consumed. He then tried the same experiment with his cheese, and articles kept in store, and often injured by mice, and with equal effect, by laying a few leaves, green or dry, on the articles to be preserved.

Potatoes for Swine.—Select a warm early piece of ground near your hog pen, of about a quarter of an acre, more or less, and having made it rich with hog or horse manure, plant it with early potatoes, which will probably answer to begin to dig in July, these will, especially if steam-

ed or boiled, be found useful in bringing forward fattening hogs before Indian corn is ripe.

Preservation of Apples.—The following valuable observations, contained in a letter from Noah Webster, esq. have been published in the Massachusetts Agricultural Repository:

"It is the practice of some persons to pick apples in October, and first spread them on the floor of an upper room. The practice is said to render apples more durable by drying them. But I can affirm this to be a mistake. Apples after remaining so long on the trees as safety from the frost will admit, should be taken directly from the tree to close casks, and kept as dry and cool as possible. If suffered to lie on the floor for weeks, they wither and lose their flavor without acquiring any additional durability. The best mode of preserving apples for spring use, I have found to be the putting them in dry sand as soon as picked. For this purpose I dry sand in the heat of the summer, and late in October put down the apples in layers, with a covering of sand upon each layer. The singular advantages of this mode of treatment are these: 1. The sand keeps the apples from the air, which is essential to their preservation. 2. The sand checks the evaporation of the apples, thus preserving their full flavor—at the same time any moisture yielded by the apples (and some there will be) is absorbed by the sand, so that the apples are kept dry, and all mustiness is prevented. My pippins in May and June are as fresh as when first picked; even the ends of the stems look as if just separated from the twig."

ON CURING TOBACCO.

To the Editor of the Farmers' Register.

I ought before to have redeemed a pledge I gave in a former communication, that I would, in due time say something upon the subject of curing tobacco. But the great draught on my time, which it is unnecessary here to state in detail, has prevented it. And, indeed, there are so many cultivators who eclipse me, and (by close personal attention, which I cannot give on account of the extent of my business,) understand the minutiae of it better than I do, that I really feel some delicacy in the attempt. I will nevertheless endeavor to explain the general principles upon which the process ought to be carried on, which, in truth, is nearly all that can be done in the compass of a communication not too long to be read. It may be of some use to those who are novices in the business.

In the first place I will remark, that the sap in tobacco contains more oil than any plant with which I am acquainted. The whole art, then consists in evaporating the water from it, so as to leave it in the purest possible state, and in the greatest quantity. To effect this, it is all-important to let it be as ripe as possible before it is cut. I believe it may be assumed that nine out of ten cut too soon, though the number of them has been diminishing, since the dealers in the article have taken up the habit of admonishing them. The first step it takes is to assume yellow spots. This should begin in the field, if it does not fire so much as to make it necessary to save it from destruction, and many are induced to cut it for this

cause, when perhaps a change of weather, from wet to dry, might stop it, as it frequently does.—But this question can only be settled by observation and reflection. Although it assumes the yellow spots in the field, it is still proper to let it stand two, three, or four days according to circumstances of heat and moisture in the atmosphere, when if it ripened green in the field, which it will sometimes do, it should begin to assume these yellow spots in the house. The firing should then commence in a very small way, and be very gradually increased for several days, till it will bear such a degree of heat as will cure the thin parts of the leaf, and the small fibres. It should then rest a day or more, to allow the stems and large fibres to diffuse the sap which is in them, and afford an opportunity to evaporate the water, and leave the oil in the leaf where it ought to be. But when the process of firing is commenced, the tobacco should never be allowed to get in high order till the stems are cured. After this is done in great measure, it is well to let it rest again, and send out the remaining sap to gain as much oil as possible in the thinner parts of the leaf. Let it be noted, that whenever the tobacco suffers for want of fire, it will be known by the "strutting" of the leaf, which should never be suffered after it is first "limbered" by the sun when it is cut. The strutting of the stem is produced by the flowing back of the sap from the leaf into the stem which it has a tendency to do when it requires heat. It is this which impoverishes the leaf along the stems. During the early part of the process of curing, care should be taken to let it have air, otherwise it will sweat, and the oil will be cooked in the water, instead of the water being evaporated from it. To this end it should be hung thin, say, in large tobacco, not more than nine plants on a stick, and the sticks 8 or 9 inches apart at least, according to the size of the tobacco. During the first resting spell indicated above, if house-room be scarce, it may be re-hung by putting the plants from four sticks on three, or three upon two as the case may be. This saves room and fire too.

The reasoning above is to show the necessity of heat in curing. As far as the sun can be substituted for fire, it is proper to use it, more especially when it is first cut, when it should be kept on a scaffold as long as it is safe from rain. But when there is a very full crop for the hands, it is hazardous to trust too much out at once. The judicious planter will regulate this by circumstances. I once saw a crop of eight hogsheads sell for nearly double the price of similar tobacco, because it was cured by natural instead of artificial heat, in houses entirely open (as it was said) on the south side, the weather being very favorable for the object. It is unnecessary to state that the manufacturers prefer that which is cured with as little fire as possible. It is difficult, however, to cure a large crop without a good deal of fire. It may be well to observe, that tobacco, like bacon, is cured in a variety of ways, by different persons, while some will be good in each way.

There is little doubt that the foregoing observations will be criticised by some who may perhaps understand the subject better than I do. If so, my object will be attained by eliciting the practice of others. Something may be gained by adopting parts of each, or letting each pass for what it is worth.

While I have dwelt on the quantity of oil contained in tobacco, I have said nothing of another ingredient which it contains in large proportion, viz. saltpetre. It is very common in rich tobacco, to see exude from the stems so as to make it white with pure saltpetre. This, however, when it is seen on fine tobacco, is a proof that it was not sufficiently fired; because it ought to be expelled from the stem and circulated in the leaf, where it should be incorporated in the oil. As a proof of the quantity of this ingredient, I will mention a fact within my own knowledge. During the revolutionary war, my father was in the habit of boiling his tobacco stalks and pouring the water into a number of trough trays, with pens of sticks rising to the surface of the water, to which the saltpetre attaches itself in delicate spangles like icicles. This was stroked off into a dust into its pure state. In those days there was more carelessness in curing than at present, otherwise the saltpetre would not have been allowed to remain in the stalks in so large a quantity.

Before I close this communication, I must warn such as gave credit to my former communication on the subject of packing plant land for burning at a future day, that in several instances my last effort failed. In the month of October a rain fell, which wet the land under the brush and wood, more than I had supposed. A threatening prospect for more induced me to set fire to them and several that were wetter than the rest made a poor turn-out. If I had waited till November, as I generally do, a dry spell had put them in fine order. Another evil also attended them. The unprecedented quantity of rain which fell during the winter, forbade my chopping them lightly again before sowing, and the ground became too compact. This would not have been the case if they had been made rich enough. I shall hereafter endeavor to pen my cattle on them in the spring before the grass seeds, and before the brush and wood is put on, or make them much richer with manure that has no seed in it.

A PLANTER.

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thin Rind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep. 27.

4t.

FOR SALE,

Upwards of 200,000 silk-worm eggs.
Address J. A. S. Patriot Office, Baltimore, Md.
Sep. 27.

3t.

FOR SALE

At Clairmont Nursery, one Sow and Boar of the thin Rind breed of Hogs, the first about 2 years old, and the latter 1 year,—a rare chance to get at once into this breed—Price \$25. Also a few pairs of Barnitz Pigs, and large Westphalian White Geese—the first \$10 a pair, and the latter \$5—coops, feed, and drayage, 75 cts. each.

ROBERT SINCLAIR.

P. S. \$2 each will be given for a few full grown Hen White Turkeys, pure blood and unmixed, delivered at our Store in Light street.

R. S.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the *Morus Multicaulis*, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1-2 to 4 feet—the 2 feet and 1 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.

se 27

ROBERT SINCLAIR.

A GARDENER WANTED.

A single man of undoubted character for sobriety, industry and honesty, and who has a thorough knowledge of gardening—who is competent to manage a large garden, pleasure ground, and hot house, and to discreetly superintend several hands that would be placed under him—will hear of a permanent situation in the South, where the climate is both healthful and delightful.

Apply to the Editor of the Farmer and Gardener, Baltimore.

All applications by letter must be post-paid.
aug 30

DALE'S NEW HYBRID TURNIP.

THE subscriber now offers to the agriculturists a new and decidedly superior variety of Turnip, originated by R. Dale, Esq. an intelligent farmer, near Edinburgh, Scotland, who thus speaks of its superior quality. "It was obtained by unwearied attention in crossing the Swedish or Ruta Baga Turnip; it is superior in size and flavor to the Ruta Baga; is closer and finer in texture; it is as rapid in its growth as the white flat turnip. In fact it includes the great desideratum in the selection of a proper variety of the turnip, which is to obtain the greatest possible weight at a given expense of manure. This variety seems to be more adapted to this end than any other sort introduced. It will be found superior in quality to any of the white field Turnips, and keeps longer than any of them, and very near as long as the Ruta Baga—the color is yellow—the shape oblong." Price 25 cents per ounce. The season for sowing is at hand.

au 23 2t

R. SINCLAIR, Jr.
Light near Pratt st. wharf.

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

aug 30

R. SINCLAIR, Jr.
Light near Pratt-st. whf.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	
CATTLE, on the hoof,	100lbs.	6 75	8 00
CORN, yellow,	bushel.	95	97
White,	"	92	94
COTTON, Virginia,	pound.		
North Carolina,	"	18½	20
Upland,	"		21
Louisiana 19—Alabama	"		52
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 50	
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	
Do. do. baker's,	"		
Do. do. Superfine,	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	
" " wagon price,	"	9 50	
City Mills, extra,	"	9 50	
Do. " " " " " " " "	"	9 00	9 25
Susquehanna,	"		9 25
Rye,	"	5 75	6 00
Kiln-dried Meal, in hhd's.	hhd.	20 00	
do. in bbl's.	bbl.	4 50	
GRASS SEEDS, red Clover,	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	2 25	2 75
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	20 00	
HEMP, country, dew rotted,	pound.	6	7
" " water rotted,	"	7	8
HOGS, on the hoof,	100lb.	8 25	8 50
Slaughtered,	"		
HOPS—first sort,	pound.	16	
second,	"	14	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic,	"		
OATS,	"	43	45
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.	4 00	5 00
Ground,	barrel.	1 50	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	102	110
Susquehanna,	"		
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"		
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"		
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	2 10	2 20
Red, best,	"	1 80	1 95
inferior,	"	1 40	1 60
WHISKEY, 1st pf. in bbl's,	gallon.	42	42½
" in hhd's,	"	39½	
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	
To Wheeling,	"	2 00	
WOOL, Prime & Saxon Fleeces,	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do.	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	15	16
Shoulders, do.	"	13½	
Middlings, do.	"		13½
Assorted, country,	"	11½	12½
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.		
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 06	2 12
CHOP RYE,	"	2 12	2 25
EGGS,	dozen.		12
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	
No. 2,	"	9 50	
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, No. 2	"		9 00
No. 3,	"		5 00
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	par
Branch at Baltimore,	do
Other Branches,	do
	MARYLAND.
Banks in Baltimore,	par
Hagerstown,	do
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton,	do
Salisbury, 5 per ct. dis.	do
Cumberland,	1
Millington,	do
	DISTRICT.
Washington,	do
Georgetown,	do
Alexandria,	do
	PENNSYLVANIA.
Philadelphia,	do
Chambersburg,	do
Gettysburg,	do
Pittsburg,	do
York,	do
Other Pennsylvania Bks. 1½a2	do
Delaware [under \$5],	3a4
Do [over 5],	2a3
Michigan Banks,	5a
Canadian do.	5a
	VIRGINIA.
Farmers Bank of Virginia 2a3	do
Bank of Virginia,	do
Branch at Fredericksburg do	do
Petersburg,	do
Norfolk,	do
Winchester,	do
Lynchburg,	do
Danville,	do
Bank of the Valley,	do
Branch at Romney, 1	do
Do. Charlestown,	do
Do. Leesburg,	do
Wheeling Banks, 2a2½	do
Ohio Banks, generally 3a3½	do
New Jersey Banks gen. 1a2	do
New York City, 2a	do
New York State, 2½a3	do
Massachusetts, 2a2½	do
Connecticut, 2a2½	do
New Hampshire, 2a2½	do
Maine, 2a2½	do
Rhode Island, 2a2½	do
North Carolina, 3a3½	do
South Carolina, 3a3½	do
Georgia, 3½a4	do
New Orleans, 6	do

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,
At the Turf Register office, corner of
North and Fayette st. Baltimore.

sep 27

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Fordland's spring cone Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.

ang 30 Light near Pratt-st. whf.

NEW CHINESE MULBERRY,

Or Morus Multicaulis Trees and Cuttings, for sale.

THE SUBSCRIBER has a large stock of these trees, very thrifty well rooted plants, 2 to 5 feet high, raised in this country, under his superintendence, which would be sold according to size, on pleasing terms, and carefully packed and forwarded to order to any section of our country.

And from six years' experiments in cultivating this tree, he is decidedly of opinion, that there is no tree so well calculated to raise silk. Any information relative to its culture, will be furnished to purchasers if requested.—Also the Italian white mulberry 2 to 3 feet, very cheap.

ROBERT SINCLAIR,

Clairmont Nursery, near Baltimore. se 20

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 23.

BALTIMORE, MD. OCTOBER 4, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, OCT. 4, 1836.

HUSSEY'S HORSE MOWING MACHINE.

In a former number of our paper we gave an account of the experiment which Mr. *Hussey* made of his machine in this neighborhood, and assigned the reasons, as we understood them, which had induced him to stop his labors. In that article we mentioned that we were informed by that gentleman that his experiments made on the Eastern Shore of this State had been highly satisfactory to the intelligent *Agricultural Board of Talbot County*, and that they would make favorable report thereof, and we are now gratified to be able to give place in another column to their official paper upon the subject, by which we learn, with feelings of unmingled pleasure, that all his experiments in that county gave entire satisfaction, and that to the generous spirit which has ever distinguished the inhabitants of our Eastern peninsula, he is indebted for a "*handsome pair of silver cups*," which trophies he receives as the unanimous expression of the great pleasure which those enlightened and distinguished agriculturists take in rewarding the industrious inventor of a labor-saving machine. So marked a testimonial from a board of agriculturists composed of gentlemen of so much patriotism, so much personal worth, so much intelligence, and so much skill in the art of farming, as is that of *Talbot*, must, indeed, be a source of proud and triumphant gratification to Mr. *Hussey*, and we trust that it will serve to arouse a spirit in his favor that will not only compensate him for his inventive genius, but lay the groundwork for a fame which will hand his name down to posterity as among those mechanical benefactors, who have contributed to build up for America a name as durable as is our inexhaustible beds of granite.

The United States Gazette of Sept. 26th states the Horticultural Exhibition closed at the Mason-

ic Hall, in Philadelphia, on Friday evening, after a very satisfactory continuance of three days.— Though the rooms were generally well filled and occasionally terribly *jammed*, yet the exceeding heat of the weather probably prevented many hundreds from attending.

The fruits not claimed at 10 o'clock, were distributed among the orphan asylums and other charitable institutions of the city. Whether the vegetables from Mr. *ENGELMAN'S* garden followed that course we cannot tell; but his turnip cabbages and other "esculents, lusty and lasting," would have tempted the palate of an anchorite, and

"Created an appetite under the ribs of death."

The pumpkin which weighed 160 pounds was a glorious fellow; but such things are becoming fashionable, and the idea of living in a pumpkin shell may not be such a hyperbole as it was thought in olden times.

RAISING OF HOGS.

A subscriber and highly esteemed correspondent living in North Carolina, has at our request furnished us with the following communication, and we take pleasure in recommending it to the attention of our readers.

Mr. Roberts:—During the past winter I spent some time in Raleigh, N. C. and whilst there a drove of near two hundred hogs came into the city for sale.—They were much larger and better fattened than the pork usually sold in that market, and that circumstance led me to enquire whence they came. On enquiry I found they were fattened in a section of North Carolina which is almost exclusively devoted to the cotton culture. This excited my surprise, inasmuch as I knew that it was an almost universal opinion of the cotton planters, that the business of making pork was much less profitable than growing cotton, and further, that in the north east counties of that state, though exclusively devoted to the culture of grain, yet the farmers even in that section prefer selling their corn to converting it into pork, and many of them scarcely make a sufficiency for their own use, and all insist that it is a losing business to make it for sale. I felt some curiosity to hear from the owner the cause of this departure from the general practice of the country. I found him a very intelligent and communicative man—On stating to him the views I have above presented, he informed me that he had once held the same opinions, but that when strictly examined they would be found fallacious.

He admitted that the autumnal sales of the

cotton planter would exceed those of the farmer who divided his attention between cotton and corn and pork, but insisted that the latter had the advantage in the long run. He enforced his views by the following reasons. The farmer who confines himself to producing a bare sufficiency of corn and pork for the use of his plantation will probably be short in good crop years and certainly so in bad ones.

His own crop is expended when those articles attain their highest prices, and when they are difficult to obtain. He is obliged to take a part of his team and some of his best workmen from the field to send a long distance for these indispensable articles, just at the time when his crop stands most in need of all his force. The high price of corn induces him to support his team upon the smallest possible quantity, and before his crop is completed, his laboring animals are so reduced as to be unable to perform their duty.

In addition to all these losses he is not unfrequently subjected to the vexation of deficient measure and a bad article. Taking all inconveniences into consideration, he said that he was fully convinced that corn and pork made up the plantation of the owner was twenty-five per cent. better than the same articles purchased.— He further remarked that much experience had convinced him, that every farmer should produce upon his own farm every article his family required, which the soil would produce well.

In relation to the unprofitableness of making pork, he admitted that as it was generally conducted it was a bad business, but insisted that it was owing to improper management.

He pointed out as very common errors the practice of permitting swine to become very poor and then attempting to fatten them. He thought that the expenses of a poor animal put into the pen and fed on corn would exceed the value of the same animal when fat.

When food of a coarse kind is plenty on the plantation the farmer feeds with an unsparing hand, and when these articles fail he leaves his hogs to shift for themselves and the consequence was that all become poor and many died.

On the first starting of vegetation in the spring a very poor hog will feed on unhealthy vegetables, though a well fed one will refuse such. This he added was a fruitful source of loss.

By a very little care a farmer might for ten months in the year provide for his swine coarse and unexpensive food, and for the remaining two months he would find his account in fully sustaining them in good order upon corn, though at twice its usual value. The great secret of his success, he said, consisted in never permitting his swine to decline, for a hog once in good condition and then reduced to poverty could not be brought back at less than twice the expense that would have maintained his condition.

WORK FOR OCTOBER.

ON THE FARM.

This is truly a busy month with the farmer; and if he desires not to be behind his neighbor, he must bestir himself from the beginning to the end, for as time is onward in its course, he who procrastinates his work—leaving what should be done to-day, until to-morrow—will find to his sorrow that he has pursued a course fatal to his hopes and withering to his prospects. *Do all things in a right time*, is an injunction that the farmer should always have upon his mind, and he should make it the business of his life to practice upon it, as he will find it a *rule* based in true wisdom and of priceless value.

But let us cease with moralizing and proceed to details.

SMALL GRAIN.

The ground for both wheat and rye must be forthwith got ready.

Wheat. The time when to sow *wheat*, is a matter of not so much clearness. Those gentlemen who contend that the deposit of the egg or nit is made upon the stalk of the young plant—and, indeed, we incline to that opinion ourselves—maintain that by delaying the time of putting in the seed an avoidance of the mischief so much deplored may be effected. Some fix the *period* of sowing at from the *first* to the *tenth* of October,—while others with the same object in view, advance the opinion that the seed should not be sown before the *first* day of November. Dr. *Horton*, whose highly interesting essay upon the subject of the Hessian Fly, we this day publish, is of the latter opinion.

A highly intelligent practical farmer from Virginia, to whom we read Dr. Horton's paper, coincided with him in nearly all his views, and stated that the Doctor was nearer the truth than any writer he had yet read. With respect to the shape and size of the insect, he perfectly agrees with him, with this addition, he says that it is *wasp-like* in shape. In the part of Virginia in which he lives, he says the uniform opinion of all well-informed agriculturists is, that the egg is deposited on the plant after it comes up in the fall—that the *ova*, said to be deposited on the kernel of wheat, is not that of the Hessian Fly, but the *weevil*, and that the one has been confounded with the other. This is most probably the case, and the assertion of the fact may lead to important results by putting the public mind on the right scent of the game.

But whether the *ova* of the Hessian Fly be made on the grain or not, the soaks recommend-

ed should not be omitted, as, should they do no other good they certainly will impart to the seed great activity in its germinating powers, and press the plant forward with highly accelerated motion.

If the ground on which wheat is to be sown be a clover-ley, it should not be turned over without a portion of lime—say from 25 to 100 bushels—being spread on it—its benefits in pressing forward the decomposition of the vegetable matter, and thus converting it into vegetable nutriment, cannot be too highly appreciated; neither can its virtues in correcting any superabundance of acid in the soil, be too highly prized.

Rye—This is a kind and generous grain, and though subject to disease, is content to grow on far inferior soils than those whereon its kindred wheat delight to revel. But though it be true that it will grow on light and gravelly soils, the notion is truly a mistaken one which goes to reject the use of manures in the preparation of the land. Well rotted stable or barn yard manure, or any good compost, where a decomposition of the vegetable material has taken place, would doubtless prove of infinite service in sustaining the plant while growing. Man requires sustenance, so does every living thing, save the Chameleon, and that *gormandizes* on the air—some men will eat more than others—some plants require more food than others, but because such is the fact, it does not follow that the least voracious do not require something to sustain vitality.

With respect to the quantity of seed of both the above grains, we would say that whoever sows seed of this year's growth, should assuredly use an increased quantity.

The *corn* must be secured and housed as soon as it is sufficiently hardened and dry, and the fodder be put away.

Timothy.—Those who have not sown their timothy should do so as speedily as possible, and by all means should not play the niggart with their seed; for he who sows with a miser's hand will reap a fruitful harvest of weeds. In putting down timothy meadows, we need hardly say that the ground should be *clean*, well ploughed, thoroughly harrowed and pulverized, nor is it necessary to state that a goodly portion of vegetable and calcareous manures should be applied. A timothy meadow, if it be expected to *produce*, must be well fed, and as it lasts seven years, it should have a liberal quantity at the onset of generous diet.

Potatoes.—Those which were sown early will in the course of the month be fit to gather, and should be carefully put away without exposure to

the sun and rain,—for rest assured, every potato raised this year will have its value.

Pumpkins.—Carefully gather and stow away all of this valuable vegetable you have made,—and here let us advise you,—feed none to your stock without cooking them.

Grubbing and Shrubbing.—If you have any fields that require either the one or other of these operations, have them forthwith done; leave no ungirdled stump on your grounds, and you will save yourself a great deal of trouble next year.

IN THE KITCHEN GARDEN.

The *Spinach* beds must be thinned out and kept clean.

Lettuce. Your lettuce plants may be planted out. About six inches apart will be a good distance at first, to be thinned out as may be required.

Cabbages. The plants which you sowed last month, must be planted out this. Throw your ground after being well prepared into ridges of two feet width; place good warm manure in the ridges, plant your plants on the north side of the ridge about nine inches apart. In the spring haul down the earth over the manure in the drill, and you will have a good supply of food for your plants, which if well worked and kept clean will afford you a choice supply of early cabbages.

Endive. This fine vegetable must be tied up and blanched.

Asparagus. Towards the close of this month your asparagus beds must receive their winter dressing.

Rhubarb. Now is the time for sowing the seed of this most excellent and healthful vegetable.

Garlic, Chives and Shallots should now be planted out.

Gooseberries, Currants and Raspberries. Towards the latter end of this month, these should be pruned and planted out.

Strawberry beds. During any period of this month you may clear out your old strawberry beds from weeds, take out the runners and give your beds a good top dressing of well rotted manure.

IN THE FLOWER GARDEN.

In our directions in this department we must be brief.

Pinks and Carnations must be attended to.

Bulbous roots,—as tulips, hyacinths, ranunculuses, anemones, &c. must now be planted out.

BONE MANURE.—Bone dust strewed over the rows where peas, beans, or any other seeds are sown, has been found to ensure a fine and more healthy plant than any other kind of manure.—It is also of great service in improving the bloom of all kinds of flowers.

THE CAUSE OF FARMERS.

The following extracts from an Address delivered by Doctor Lindsley before the University of Tennessee, and the remarks made upon it, should be particularly noticed and cherished by the farmers of our country.

None but enemies of the people will ever gravely maintain that a common school education, in the ordinary meaning of the phrase, is all they need. This would be virtually telling them to be hewers of wood and drawers of water under their political task-masters forever. Why is it that our lawyers rule the nation, and fill our lucrative offices, from the presidency downwards? Simply and solely because they can do something more than read and write. If our mechanics and farmers would enter the lists with our lawyers, they must acquire the same degree of intellectual power and address.

I have been pleading the cause of farmers and mechanics for some ten or a dozen years past.—Because upon them, as enlightened, judicious, independent, patriotic citizens, depend the destinies of this republic. The question is, shall they lead or be led? Shall they arrest and put down the factious spirit of unprincipled ambition, or shall they tamely lend themselves as instruments and the victims of desperate and treasonable purposes? The crisis has arrived when the people must speak and act wisely, or their ability to speak and act, with decisive efficiency, will be lost forever.

The lawyers are now our sole political guides and instructors. They engross the learning of the country; I mean all that learning which is brought to bear on government, legislation and public policy—for the physicians rarely intermeddle in these affairs—and the clergy ought forever to be excluded by law, if not by a high sense of duty. Our farmers and mechanics, therefore, who constitute the great body of the people, are governed by the lawyers. Now, is it not in human nature, that in such a country as ours, there should not grow up a sort of professional aristocracy, which in time may become irresistible? Wherever there is a privileged order, no matter how constituted—whether like the *patrician* of ancient, or the *ecclesiastic* of modern Rome—it will, if not duly checked and counterbalanced, in the long run, become overbearing and tyrannical. I look to the college for a reasonable supply of countervailing agents. I look forward to the period when it will not be deemed anti-republican for the college graduate to follow the plough; nor a seven days' wonder for the laborer to be intellectual and to comprehend the constitution of his country.

I am not unfriendly to lawyers. I could say much in their praise, were I in the humor of passing encomiums. In their proper sphere they are useful and necessary. But that they should engross the legislative, judicial and executive functions of the government, is neither republican, nor safe, nor, upon any ground, defensible. There would be reason in the thing, if, like the farmers, they composed a large numerical majority of the population. But that a few thousand of any particular profession, class, or order, should rule over millions, is as anomalous, and as inconsistent with the genius of our popular institutions, as would be a hereditary aristocracy, possessing

the same exclusive privilege. The farmers have no alternative but to yield their necks to the yoke, or to open up to their sons a great highway to the scientific halls of the university. Belonging as I do, to their respectable fraternity by birth, by early association, and by all the ties of kindred—the son of a laboring farmer, the brother of laboring farmers, and the father, it may be, of laboring farmers and mechanics—I cannot be indifferent to their welfare, even upon the most selfish considerations. But I feel conscious of a higher motive. I seek to elevate my country, by imparting to her sons the noblest attributes of humanity. That we may be forever a nation of enlightened, generous, high-minded, self-governing freemen, the envy and admiration of the world.

Our author's remarks, illustrative of the tendency of learned institutions to foster and support civil liberty, are supported by our ideas of intellectual culture, and by the part which these institutions have acted, when unfettered by superstition and restrictive law. Witness the Gymnasiums of Germany and the Polytechnic schools of France.

Wherever (says our author) the university has been suffered to flourish and expand, and to send forth its salutary streams among the people, there have been growing up both the capacity and the determination to resist all gross oppression. And there, too, a decided progress has been made in all the arts of peace, and especially in the science of government. In Spain, Portugal, and Russia, a fool or a ruffian may be tolerated on the throne, because the university has been kept in bondage and the people in ignorance. But were a Nero seated on the throne of England tomorrow, he would not dare to violate a single law of the realm. He could no more enact the part of a Richard or a Henry, than the meanest subject could commit murder with impunity.

The history of those colonial pioneers in the cause of learning, virtue and liberty, is pregnant with instruction to all men who entertain doubts or fears or prejudices in regard to the character, influence and bearings of similar establishments. Within sight of the oldest and still most celebrated university of our country, commenced the mighty contest which created a nation of freemen. And her gallant sons poured out their blood like water upon the battle field. They roused by their eloquence every patriotic energy of their countrymen, and were ever foremost to hazard and to sacrifice fortune and life for the general weal. Then was the golden opportunity for college bred gentlemen to have secured stars and garters, and mitres and estates, by rallying around the royal standard, in support of legitimacy and aristocracy, of the priest and king; and to have placed their feet proudly on the necks of the vulgar and illiterate. So base a sycophant, so traitorous a tory, so aspiring a *would-be* lord, never disgraced a college catalogue.—Not one proud recreant to the cause of popular rights and liberty. Whatever their calling or profession—lawyers, physicians, clergymen, merchants, farmers—all the sons of *Alma Mater*—were found in the ranks of hostility to Britain's claims and Britain's legions.

Nor ought it ever to be forgotten that, throughout the original thirteen confederated colonies,

afterwards states, the best educated and most enlightened individuals were decided Whigs;—and in their wisdom, intelligence, patriotism and integrity, the people reposed unlimited confidence. And they were not deceived. These were the men who directed the Revolutionary conflict: and these too were the men who formed the Constitution, under which we now live in peace, prosperity and happiness, unparalleled in the history of our world.

The following paragraphs accord so well with our sentiments, that we can do no more than give them a cordial recommendation:

But our farmers ought, beyond all question, to be liberally educated; that is, they ought to have the best education that is attainable. I do not say that every farmer ought to go to college, or to become a proficient in Greek or Latin. I speak of them as a class; and by a liberal education I mean such a course of intellectual discipline as will fit them to sustain the rank which they ought to hold in this republic. They are by right the sovereigns of the land, because they constitute an overwhelming majority. Why do they not then, in fact, rule the land? Because, and only because they are too ignorant. And thus they sink into comparative insignificance: and suffer themselves to be used as the mere instruments of creating their own members, who care as little for their welfare as if they were born to be beasts of burden. Were it possible, I would visit every farmer in Tennessee, who is not already awake, and endeavor to arouse him from his fatal lethargy, by every consideration which can render life and liberty desirable: and urge him to reclaim his abandoned rights and his lost dignity, by giving to his sons that measure of instruction which will qualify them to assert and to maintain just superiority in the councils of the state and of the nation, like men proudly conscious of their intellectual as well as physical power.

The same general remarks apply to mechanics and to all the laboring classes in proportion to their numbers. An education, even of the highest order, may be as valuable to them as to others. In our free country, a farmer or mechanic, with equal talents and intelligence, would be more likely to become a popular favorite, than either a lawyer, or the well bred heir of an opulent patrician family. Suppose a farmer could speak as well, write as well, appear as well versed in history, geography, statistics, jurisprudence, politics, and other matters of general and local interest, as the lawyer—would he not stand a better chance of being elevated to the highest, most honorable, and most lucrative offices?

The grand heresy on the subject of education seems to have arisen from the usage which obtained at an early period in modern European society, and which many centuries have sanctioned and confirmed—namely: that a learned or liberal education was, and is deemed important only for a liberal profession, or for gentlemen of leisure. Hence the church, the bar, and the medical art, have nearly monopolised the learning of the world. Our people reason and act in accordance with the same absurd and aristocratic system. The *cui bono* is upon every tongue.—“What good,” it is asked, “will college learning do my son?—He is to be a farmer, a mechanic,

a merchant." Now I would answer such a question, in the first place, directly thus: "A college education, or the best, most thorough, and most extensive education that can be acquired, will be of immense benefit to your son, simply as a farmer, mechanic, merchant, manufacturer, sailor or soldier." And I would patiently endeavor to show him how, and in what respects; but I will not attempt to illustrate such truisms at present. But in the second place I would reply to my plain friend's interrogatory thus: "Educate your son in the best manner possible, because you expect him to be a MAN, and not a horse or an ox. You cannot tell what good he may achieve, or what important offices he may discharge in his day; for aught you know, he may, if you do your duty by him, become the President of the United States. At any rate, he has reason and understanding, which ought to be cultivated for their own sake. Should he eventually live in the most humble retirement, and subsist by the hardest manual labor, still he may enjoy an occasional intellectual feast of the purest and most exhilarating kind. If all our laboring fellow-citizens could relish books and should have access to them, what a boundless field of innocent recreation and profitable entertainment would not be always at hand and within their reach? What a flood of cheering happiness would not be shed upon the dark path, and poured into the bitter cup of millions of rational, immortal beings, who, at present, rank but little above the brute in their pursuits, habits and enjoyments?"

In reference to elementary education, a parent ought never to inquire what a child is to be—whether a farmer or a lawyer—but should educate him in the best manner practicable, and endeavor to inspire him with sentiments of virtue and independence, which would preserve him from the vulgar pride of being ashamed to earn his living by honest industry. Besides, learning is itself a treasure—an estate—of which no adverse fortune can ever deprive its possessor. It will accompany, and console, and support him to the world's end, and to the close of life.

Our farmers and laboring classes have as much leisure for miscellaneous reading and study, as the professional—or even as the wealthy or fashionable idlers who do nothing. Paradoxical as this may seem, it is notoriously the fact. Even in England, where this leisure is not half so great as the poorest of our people habitually enjoy, it has been discovered that the most ignorant and debased and hard-worked manufacturing operatives have abundant time for much intellectual cultivation.

From the Northampton (Mass.) Cour. Aug. 24.

CHINESE MULBERRY.

Although defoliation might injure or destroy some trees and vegetables, the leaves being to the vegetable what lungs and stomach are to animal life, it does not follow that all trees and vegetables suffer alike by defoliation. The grasses, the box, the willow, and some others may be cut, headed down or the leaves plucked, almost for an indefinite period, without effecting destruction. Do not all pastures produce better and sweeter grasses by frequent cropping, than when first laid down? Shall it then be thought

wonderful that the Chinese *Morus Multicaulis* will bear defoliation several times during the same season? From experiments already made, it appears that this plant has been plucked of its leaves for feeding worms not less than four or five times without any injury to its growth,—but the leading shoots must not be topped,—and every successive crop of leaves are improved in number and weight. At the same time, the wood is acquiring hardness for future use. If the object be the formation of wood, then take off the leading end of the tree or shoot. Another excellence of the Chinese mulberry is the richness of its leaf for feeding worms—while 100 pounds of white mulberry leaves are required to feed worms sufficient to make one bushel of cocoons, 75 or 80 of the *Morus Multicaulis* will do the same thing; and while it is full a day's work to pick 100 lbs. of white mulberry leaves, with the same labor 500 lbs. of the *Morus Multicaulis* might be collected. And while it is generally allowed that it requires about 3000 worms fed on white mulberry to make one bushel of cocoons, the same quantity of cocoons have the present year been made with 2000 worms fed with the Chinese mulberry.

SILK WORMS have had an unexampled bad summer. The amount of wet and cold weather has been very prejudicial to their prosperity.—They need dry air and a warm temperature, and consequently those who have fed worms this season have been obliged to take every precaution to prevent their dying. Still, more than ordinary numbers have in this way been killed, and the cocoons are unusually defective. Great numbers we have noticed, in cocooneries, have begun winding, and after enclosing themselves but slightly with floss silk, have suspended operations and died. The cold has a very pernicious effect. We have noticed the worms various times this summer, when the thermometer was slightly depressed in the morning, lying in a perfect state of stupor, apparently dead. A change in the atmosphere of but a few degrees, had the effect to rouse some of them up and then they would move quick and eat voraciously. There is much both curious and interesting to be found out by attentively noticing the habits and transformations of this mysterious little worm.

THE HESSIAN FLY.

As it is a matter of high importance to farmers to know the history and habits of the Hessian Fly, I have taken some pains to acquire this knowledge, which I shall, for their benefit impart to them, avoiding as much as possible, all technical language.

The Hessian Fly, as it is commonly called, is of that genus of insects known to naturalists by the name of *tenithredo*; and is a kind of winged ant, very small, being not a line, or twelfth part of an inch in length. It might more properly be called the wheat insect; for I have been unable to ascertain that it deposits its eggs on any other plant. From long observation I am of opinion that the eggs are deposited generally in the fall, and have my doubts whether they are ever in the spring. The place selected for the purpose of depositing the egg, is between the first or second blade and the stalk.

Early in the month of April, the egg, or nit will be found either at the root, under the first blade, or just above the first joint, under the second blade; rarely, yet sometimes, as high as the second joint. I have said that I have my doubts, whether the eggs are ever deposited in the spring. In favor of this doubt are these arguments. It would appear impossible that such a delicate insect should be able to endure the severe cold of such a winter as the last. All winged insects, with whose habits we are acquainted, such as the butter fly, silk worm moth, and other moths, deposit their eggs either in the summer or fall.—The uniformity in Nature's operations also deserve notice. Those who advocate the opinion that the eggs are deposited in the spring admit that some are deposited in the fall. This would lead to the conclusion that there are two classes of these insects which would be impugning the wisdom of Nature, and doing violence to the well known maxim—"Nature never employs two causes, when one is sufficient to produce the effect."

It is an erroneous idea that the fly eats the wheat or straw. The nit or egg receives its nourishment by absorption, and as it increases in size, presses upon the tender stalk and forms a complete bed. The wheat is destroyed by the pressure upon the stalk, which prevents a free circulation in the sap. Late in the month of April, the egg will be found to have become a living maggot, or as naturalists have it, a *chrysalis*; in May it becomes covered with a brown parchment-like case, and thence forward to the 26th of July, or 1st of August, has not the least locomotion; then it emerges from its shell, eats through the blade and takes wing. Thousands of them fall victims to birds, such as the swallow, night hawk, or bull bat; whippoorwill, and all those birds that feed upon the wing. Five hundred have been observed in one night hawk, or bull bat, recently shot. Hence will be perceived the great impropriety of killing these birds; for they are doubtless designed by an all wise Providence for the destruction of those insects, which would otherwise become an intolerable annoyance to man.

Finding my wheat not to look so well as usual in May last, I examined it, and found that but few escaped the notice of the fly. From one to four eggs were found on a stalk, in that state which is best known to farmers by the name of the *flax seed state*; being at that time about the size and shape of that seed, but of a little darker color. In wheat sown on a clover ley, about the first of October they were found commonly to occupy that portion of the stalk, immediately above the first joint, completely covered by the blade. In wheat sown in the latter part of October on corn ground, limed and manured, the fly was more commonly found under the first blade and near the root. This wheat was less injured, and turned out a better crop than the former, on ground equally strong. If the month of May should chance to be dry, the wheat perishes for want of sap—the circulation being obstructed by the fly—if wet, less injury is sustained.

Before harvest I pulled up a number of stalks of wheat on which eggs were deposited, cutting off the tops above the first joint, I put the remain-

x *tenithredo*

* obstructed

ing parts with the roots, into an open mouth glass jar, in which I also put a sponge saturated with water, for the purpose of keeping up a constant supply of moisture. This jar I covered with a tin cover, perforated with a few small holes, to admit air, and to let the superfluous moisture pass off. About the 25th of July I first observed the flies to make their appearance in the jar, perfectly formed, very active and restless little insects, being almost constantly in motion. The eggs have not yet (August 4th) all hatched; whence I infer that the time of bursting forth, from their shells is, from about the 25th of July to the 6th of August. The appearance of my wheat stubble justifies the inference. At the same time when I first discovered the flies in the jar, I examined the stubble and found some of the flies had taken wing; while a few yet remain at this period unhatched.

It has been suggested by some writers that the egg is deposited in the grain, somewhat in the same manner that the eggs of the pea bug are deposited in peas: by others that they adhere to the outside of the grain. Such are theoretical, but not experimental writers. Assuming false premises they arrive at false conclusions. Whence they advise to wash the seed wheat in brine, and roll it in lime, to destroy the eggs of the fly.—Now it so happened that my seed wheat was prepared precisely in this way last fall, but with very different objects. It was washed in pickle to take out cheat, and other light seed; and rolled in lime to separate it for sowing—and at the same time to promote vegetation; but he who shall expect by these means to avoid the fly will be wofully disappointed.

The only advice that I can give with any hope of advantage is the following:—

First, Let the ground have strength and be well prepared.

Secondly, Sow late; not much before the first of November.

Thirdly, Inspect your wheat closely in April, and if you find many eggs or maggots, of the fly, strew recently slacked lime over it, about a bushel to the acre. The dew and rain will carry the lime down upon the insects and destroy it; beside the lime will help the growth of the wheat.

Lastly, It is believed that about four quarts of flour of sulphur strewed upon each acre of wheat very shortly after it comes up, will be found an effectual preventive of the fly.

My reasoning on this last proposition is to the following effect. All those insects, which feed on plants, are directed to them, by the scent or odour of each particular plant; for instance, the rose bug to the rose, the streaked yellow bug to the cucumber and melon, the very small black bug or flea, to the cabbage plant. In all these instances I have preserved my plants by strewing any thing on them which had a stronger scent or odour, than the plant; and for this purpose nothing is cheaper, more effectual and enduring than sulphur. Surely those little insects, with microscopic eyes, whose vision does probably not extend more than a very few inches, cannot discern their favorite plants by sight. It must be by some other sense, and that is the sense of smelling which they possess to a degree beyond any thing of which man can have any idea. We do not see them taste and try, but by the acute

sense of smell they are directed invariably to such plants as they prefer.

With such an enemy as the Hessian all means are honorable; and to practice this *ruse de guerre*, although a little deceptive, is justifiable, on the principle of self defence.

On a subject of so much importance to the community at large, it behooves every one to investigate, to scrutinize, to ascertain, if possible, the nature of the evil, and point out a remedy. Impressed with this duty I have made the foregoing observations, and deem no other apology necessary for subscribing my proper name.

W. L. HORTON.

Woodlawn, Aug. 6, 1836.

P. S. Since the above was written, it has occurred to my mind that if the wheat stubble could be burned, soon after harvest, a great number of the flies might thus be destroyed.

HUSSEY'S GRAIN CUTTER.

Report of the Board of Trustees of the Maryland Agricultural Society for the Eastern Shore, on the machine for harvesting small grain, invented by Mr. Obed Hussey, of Cincinnati, Ohio.

The favorable accounts of the operation of this implement in several of the Western States, induced the Board to invite Mr. Hussey to bring it to Maryland and submit it to their inspection. It was accordingly exhibited in Oxford, Talbot Co. on the first of July, in presence of the Board and a considerable number of other gentlemen. Its performance may justly be denominated perfect, as it cuts every spear of grain, collects it in bunches of the proper size for sheaves, and lays it straight and even for the binders. On the 12th of July a public exhibition was made at Easton, under the direction of the Board—several hundred persons principally farmers, assembled to witness it, and expressed themselves highly satisfied with the result. At the Trappe where it was shown by the Inventor on the following Saturday an equal degree of approbation was evinced. It was afterwards used on the farm of Mr. Tench Tilghman, where 180 acres of wheat, oats and barley were cut with it. Three mules of medium size worked in it constantly, with as much ease as in a drag harrow. They moved with equal facility in a walk or a trot. A concise description of this simple implement will show that it is admirably adapted to the important purpose for which it was invented. Resting on two wheels which are permanently attached to the machine and impart the motion to the whole, the main body of the machine is drawn by the horses along the outer edge of the standing grain. As the horses travel outside of the grain it is neither knocked down or tangled in the slightest degree. Behind the wheels is a platform (supported by a roller or wheel) which projects beyond the side of the machine, 5 feet into the grain. On the front of the edge projecting part of the platform is the cutter. This is composed of 21 teeth, resembling large lancet blades, which are placed side by side, and firmly rivetted to a rod of iron. A lateral motion is imparted to it by a crank, causing it to vibrate between two rows of iron spikes, which point forward. As the machine advances the grain is cut and falls backwards on the platform, where it collects in a pile. A man is placed on the part of the platform directly be-

hind the machine, and with a rake of peculiar construction, pushes off the grain in separate bunches, each bunch making a sheaf. It may appear to some that the grain will accumulate too rapidly for this man to perform his duty. But upon considering the difference between the space occupied by the grain when standing and when lying in a pile after it is cut, it will be evident that the raker has ample time to bush off the bunches even in the thickest grain. In thin grain he has to wait until sufficient has collected to form a sheaf.

The machine is driven around the grain which may be sown either on a smooth surface or on corn ridges. For the first round a way may be cleared with a cradle; but this is deemed unnecessary; for the grain, when driven over, is left in an inclined position, and by cutting it in the opposite direction as much of it is saved as with a cradle. Fourteen acres in corn lands were cut between 10 A. M. and 7½ P. M. The hands had never worked with the machine before, nor was it a trial day's work. For owing to the shortness of the straw, the machine was not allowed to cut when passing over the ridges from one side of the ground to the other, and this time was consequently lost. From the principle on which the cutting is performed, a keen edge to the cutter is by no means essential. The toughest weeds, an occasional corn stalk, or a stick of the thickness of a man's little finger, have been frequently cut without at all affecting its operation; it can be sharpened, however, in a few minutes with a file. The width of the swath may be increased by having the cutter made longer, and the same machine will cut a stubble of several different heights.

There is ample room to make the different parts of any size, though the strength of every part has been fully tested. The machine has been often choked by oyster-shells getting into the cutter, in attempting to cut too low a stubble. The motion of the machinery being checked, the main wheels slide on the ground, the strain on every part being equal to the power exerted by the horses. It can be managed by any intelligent, careful negro. We deem it a simple, strong, and effective machine, and take great pleasure in awarding, unanimously, the meritorious inventor of it a handsome pair of silver cups.

ROBT. H. GOLDSBOROUGH,
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ROBERT T. BANNING,
SAML. HAMBLETON, Sr.
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MARTIN GOLDSBOROUGH,
HORATIO L. EDMONDSON,
TENCH TILGHMAN.

From the Genesee Farmer.

HARVESTING OF CORN.

Mr. Editor:—Some of my opinions respecting the best and most profitable mode of harvesting corn, were considerably shaken by the communications which appeared in the last volume of the Farmer on this subject, from men whose testimony is of the greatest weight; my impression has been, that to secure the greatest

quantity of good sound corn, it was best, as soon as the tops had become somewhat dry, and the ears hard glazed, to top the corn, and let the ears stand on the stalks till the time of gathering, and such, of course, has generally been my practice. I did this, because I believed that after the top had performed its office of fecundating the plant, it became in a manner useless; and that stalks dry and leaves withered, however excellent as a fodder for cattle, could do little or nothing towards elaborating the juices necessary for the perfection of the ears. It besides appeared to me that the fresh and green husks, which farmers know retain their power of elaborating sap much longer in general than the leaves, were designed by nature to supply the ears with food; and though opposed to the mutilation of plants generally, as the means of increasing their productiveness, topping corn I did not consider as an operation of that kind. When such men, however, as Buel and Colman, maintain a different theory, and backed by experiment, contend that topping corn is hurtful, it certainly becomes minor agriculturists to pause, and test the question thoroughly. These farmers and others assert, that topping corn is decidedly injurious—that it materially lessens the actual weight of the crop—and, therefore, allowing the stalk to remain whole till the time of gathering, or else cutting it up close to the bottom, is the preferable mode of harvesting.

These experiments, though so far as they were detailed, they appeared to be very fairly conducted, were not altogether satisfactory to me, as they did not go far enough. Every farmer is sensible, that corn topped becomes more thoroughly dried by exposure to the direct rays of the sun, and must, therefore, be expected to weigh less at the time of gathering, than corn shaded by the husks, or cut up at the bottom and standing in shocks till husked. My corn, the past year, had been cut up at the bottom, with the exception of a few pieces of rows, before the thought of making any experiment myself on the subject occurred. In order to see, however, whether my ideas of the different rate of shrinkage between topped corn, and that cut up, were correct, I carefully weighed a basketful of ears of each kind, at the time of gathering, and placing them in a dry chamber, where they lay undisturbed, let them remain until the middle of January, when I had both kinds carefully shelled and weighed. By this experiment it appeared that the corn cut up at the bottom, shrunk three pounds in a bushel more than the topped; but this did not mark the extent of the difference, as, at the time of shelling, the former was easily distinguished from the latter, by its comparative dampness, though both parcels were bright, fine corn. I cannot, therefore, consider the question as entirely put to rest by any experiments that have been made, but as the matter is certainly one of importance, I hope another season will not pass without its being done effectually. In order to do this, all the specimens must not only be weighed and measured at the time of gathering, and at the time of shelling, but be suffered to remain in some position favorable to the evaporation of all the dampness until the corn is completely and thoroughly dried, when a careful comparison of the whole would show the result.

From the Southern Agriculturist.

OUR SOUTHERN PLANTERS' INTERESTS CONSIDERED.

PINELAND, August 16, 1836.

Mr. Editor—While the South indicates a disposition to shake off the lethargy which, like a spell, has so long enthralled her, and to put forth her energies like a lion just roused from his slumbers, permit me to invite the attention of planters and farmers, to some more certain, though more humble means of acquiring wealth, than constructing magnificent hotels, steam boats, rail roads, and packet ships. All these projects require capital, and not a little. With these things, I should say, agricultural men have nothing to do. They belong to merchants, stock-brokers, and others having surplus cash capital. Agriculturists should employ their gains, in the improvement of their estates; introducing and testing experiments for augmenting the quantity, and improving the quality of what they produce for market, and in evolving the capacities of our soil and climate for naturalizing the productions of foreign countries. This is their proper fort; and when they step without it, they plunge into troubled waters, where they may perish. Suppose a planter to invest \$50,000 in stock, which pays him semi-annually a dividend of 5 per cent. He has a planting interest worth at a fair cash price \$300,000, but from diversion of capital and division of attention, the interest received from it declines from 7 to 4 per cent. Does the extra interest from stock reimburse him? Or does it compensate the community for the loss of his exertions and experience, in developing their means of competing successfully with their neighbours, and with distant countries? I apprehend not, but those who fancy they have spare means, will "gang their own gait." Those o'ergorged with wealth, will not deem the following promptings worthy their notice; but as they can be acted upon by the smallest farmer, as well as by the most extensive planter, I would fain hope my feeble efforts may not prove utterly valueless. I shall at present ask notice for only such vegetable productions as I know, beyond question, can be advantageously cultivated in the Southern States to any extent—for domestic purposes or for exportation—and most of them with a *very small* capital. I will bring these matters to view, in the order they occur to my mind.

INDIGO.

Is made from the *radigofera tinctoria*. The Spanish indigo is said to be the best in the world, but it is in fact, American, being produced in the province (now State) of Gautemela. Formerly it was made in this State for exportation, but gave place to cotton. The latter is so generally cultivated now, that attention may be very profitably directed again to indigo. When we abandoned the cultivation of it some years past, there was comparatively a small demand for it, in this country and Europe. A vast proportion of the goods coloured with that dye, was imported from the East-Indies; consequently the market for American indigo was extremely limited, and the planter gladly turned his attention to an article promising as good returns, and more ready sale. It was certain that cotton manufactories were rapidly progressing in Europe, and would

consume all we could supply them. We had no glut to fear; consuming their fabrics, it was but natural they should give our raw material the preference. It is easy to overstock a market with dye stuffs, but difficult to do so with the matter to be coloured. This led to the abandonment of indigo, and now this country has to import large quantities for home consumption. We have now a home market for the article, with a daily increasing demand. The coarse goods we formerly imported from the East Indies we no longer see. We substitute European and American fabrics, which fabrics absorb vast quantities of colouring, and cause a consumption of indigo unknown in Europe and America, when that dye occupied the attention of our farmers. The supplies drawn in those days from North and South America, have dwindled down to almost nothing.—The United States produce *none*, and the unsettled state of the countries formerly under the Spanish and Portuguese governments, must for many years to come, render supplies from that quarter both *partial* and *precarious*. It is evident, that while the demand for indigo on both sides the Atlantic is immensely greater than it was fifty years ago, the supplies from all countries upon that Ocean north of Cape Horn, are diminished in the same ratio. As a home market is open for large quantities, I cannot but believe, many would find it to their advantage to substitute indigo for cotton. *Many* years must elapse, before we can produce more than a sufficiency, for home consumption, and again become exporters. The supply of our own market is, I think, a sufficient inducement to cultivate the plant.—"The seed may be sown at all times, but spring is the best, and the species named in this communication makes the best indigo. It should be planted in good smooth soil, well tilled and not too dry, in furrows about six inches wide, two inches deep, and twelve apart. It must be kept clear of weeds. The plant ripens in about two months. When it begins to flower, cut it with pruning knives, and again every six weeks if the weather should be a little rainy. After two years it degenerates and must be plucked up. The leaves and small branches should be gathered with great care, to avoid the shaking off the farina that lies on them, which is very valuable.—Throw them into a large tub, or vat, with water, for fermentation, which will be completed in twenty-four hours at most. By means of a cock or spigot, draw off the water into another tub or vat, called the mortar, or pounding tub. The steeping (or first tub) is cleared out, filled again, and so on. The salt of the plant must be separated by agitating the water in the mortar, by using wooden buckets full of holes, fixed to long handles. Be very careful in this part of the process. If the agitation be too soon stopped, the part used for dyeing, not being sufficiently separated from the salt, would be lost. If agitated too long after the salt is out, the parts remaining will form a new combination. The salt reacting on the dregs, will produce a second fermentation, change the color and make what is called burnt indigo. This will be prevented by close attention to the colour, and changes of the dye, by drawing a little from time to time, into a clear vessel. When the colouring particles collect by separating from the rest of the liquid, quit using

the buckets, and let the dregs settle to the bottom. Holes in the tub (or vat) at different, but regular intervals of height, previously made and plugged, must now be opened, and the clear water drawn off. See that the water is clear before this is done, so as to secure every particle of dye-stuff. The dregs remaining, are then to be drawn into the third tub or vat, which is the settler. The water floating in this last vat, is to be withdrawn by means of a small perforation, minutely made above the dregs. When this is done, put the dregs into sacks, and when the drain of water ceases, put the indigo into chests, or small boxes. At the end of three months it will be perfectly dry, and ready for sale any where."

"A hint to the wise is sufficient." Indigo requires no expensive machinery to prepare it for market. Every farmer can purchase a molasses cask, and make of it two tubs. Every one who knows the use of the saw and plane, can make a vat, perforate and splice it, and then make boxes or chests, for the indigo. The indigo planter will pay no toll of 6, 8, or 10 per cent, and his valuable commodity being less bulky, will pay less carriage than cotton, rice, or sugar.

Hops—(*Humulus*),

Are a profitable culture, and are indispensable to the baker and brewer. They are also used in medicine. When the vast quantity of porter, ale, and beer, made in this country is considered, it will be perceived this article is of much greater consequence than will at first strike us, who so seldom hear it mentioned. The labor, compared with that necessary to the production of rice, sugar, or cotton, must be light, and when the crop is to be gathered, children entirely useless for general plantation purposes, will be found valuable assistants. The North offers us a sure market, for any quantity we may grow. It is scarcely necessary to mention, this article pays no toll, consequently has fully 8 per cent advantage of cotton, rice, or sugar. The hop produces variously to the acre, from 100 to 2000 lbs. according to the soil and season, but it is said the general average crop, is not less than 700 pounds for market. This quantity, at 15 cts. per pound, gives to the acre \$105. Which is much more than any rice or short-cotton lands pay, while the culture cannot be more expensive than the short-cottons, and not as much so as rice.

The hop-grower is at one charge, unknown to any of our present cultures. The vines must be supported by stakes or poles, at convenient distances, but as these will be efficient several years, the annual cost will be unimportant. The experiment is worthy of a trial; if we are content to do only what our fathers did before us, we shall be double-distanced in the race with our Northern brethren—they will achieve fortune, while we, perchance, may lose what of it we have. Any planter may tend a few acres, and prosecute or decline the culture, as his experience advises.

CASTOR OIL—(*Palma Christi* or *Ricinus*),

Is another article we ought to produce for domestic purposes, if not for exportation. No one will doubt it can be done to almost any amount, and as it can be made to serve the purposes of whale oil for mills, and of sperm for dwellings, in addition to its extensive use as a

medicine, it should not be neglected. Every farmer can make enough for his own use, but he ought charitably to consider the wants of his neighbors. It is no uncommon thing to see cotton-gins worked by individuals, who grow no cotton of their own. Now, why cannot others establish presses for making Castor Oil? The expense, I judge, to be less than that of a cotton gin. The process of making the best oil is easy, and simple. "The screw and lever used in baling cotton, are also used in expressing the oil from the beans. Under the screw is fixed strong iron cylinder, into which the beans are put and covered with an iron follower, of diameter proportioned to the cylinder. The screw is forced down upon the follower, crushing the beans, and producing what is termed "the cold expressed oil." I should have mentioned the capsules, or unopened beans, are first to be well cleaned, and moderately heated in a furnace, not so hot as to be distressing to the naked hand. In this way, a bushel of beans yields seven quarts of oil."—The cylinder, may have cocks at convenient distances from the bottom, so as to accommodate the draught, to the quantity of beans pressed, or but one, in which case the mass of beans must be always equal, and accommodated to the vent for the oil. Nothing is more practicable than establishing oil presses; indeed, a cotton gin may by a very trifling additional outlay, become an oil press. As it is common now with many small planters, to sell their cotton in the seed to ginners, the same may be done by small producers of the castor oil bean, if it should become so freely cultivated, as to induce a profitable culture. Had I a doubt on the subject, it would be removed by the knowledge of its having been so productive of gain, "to one Western planter, that he has increased the quantity 2500 per cent. in six years." "He began with making five hundred gallons, in 1825, and in 1831, he produced twelve thousand five hundred." This oil is worth at least \$1 50 per gallon, but introduced into general use, as I have hinted, the price will advance, it may be thought at first view. This impression will be found erroneous. Extended production must precede extended consumption. Hence the almost positive certainty that the planter will be amply remunerated for his labour, and the oil be brought within reach of all who now use sperm—filthy detestable fish oil—though it is sperm. Who can bear the smell of it—the raw, fishy smell? Assafoetida is not half so bad. I trust the day is not distant, when the medical, will be but one of many uses, to which this oil will be applied.

SWEET OIL,

Can be easily expressed from our common ground nut, but I am not prepared to say, it is not more profitable to sell the nuts in their native state. I mention the oil they yield, because in the transactions of the "London Society for the encouragement of Arts, Manufactures and Commerce," it is stated, a sample of it was exhibited in December, which they "received from Mr. George Brownrigg, of Edenton, North Carolina, in the month of April. It had not been kept with more than ordinary care, was perfectly sweet, and was pronounced equal to the best oil, from the olive or almond, and applicable to the same purposes. Mr. Brownrigg stated, a bushel

would, without the agency of heat, yield four quarts of pure oil. His mode of expressing oil, was to remove the shell, bruise the peas well, put them into canvass bags, and then apply the expressing power. The cake remaining, he found to be excellent for fattening hogs." If you will inform me what a gallon of almond oil is worth, I will be able to determine the question, whether it is best to sell the nuts, or convert them into oil.

Mr. Editor, my paper is at the stationer's, or I should trouble you with some more of my thoughts, upon things not done or attempted.—When I get a supply, you may hear from me again, and certainly will if you take this "in good part." Your well wisher. CALEB.

The annual exhibition of the Horticultural Society of Maryland was held in this city last week, and elicited crowds of admiring spectators. The display of fruits and flowers surpassed all expectation, and evinced most strongly how great and signal have been the advantages secured to this community by the untiring zeal, enterprize and intelligence of the members of that truly patriotic association, and how deep is the debt of gratitude which they have imposed upon their fellow-citizens.

Two English bulls of the Durham breed were recently imported into New York, and at public auction a few days since were purchased for a gentleman residing in Ohio. The one brought \$710, and the other \$525.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oc 4

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thin Rind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep. 27.

4t.

FOR SALE,

Upwards of 200,000 silks-worm eggs.

Address J. A. S. Patriot Office, Baltimore, Md.

Sep. 27.

3t.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every day.

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	
CATTLE on the hoof,.....	100lbs.	6 75	8 00
CORN, yellow,.....	bushel.	98	102
White,.....	"	94	96
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	18 1/2	20
Louisiana 19—Alabama	"		21
FEATHERS,.....	pound.	50	62
FLAXSEED,.....	bushel.		1 50
FLOUR, MEAL—Best wh. wh't fam.	barrel.	12 00	
Do. do. baker's,.....	"		
Do. do. Superfine,.....	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	
" " wagon price,.....	"	9 50	
City Mills, extra,.....	"		9 50
Do. " " " " " " " "	"	9 00	9 25
Susquehanna,.....	"		9 25
Rye,.....	"	6 00	6 25
Kiln-dried Meal, in hhd's.	hhd.		20 00
do. in bbl's.	bbl.		4 50
GRASS SEEDS, red Clover,.....	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 5	3 00
Tall meadow Oat,.....	"	2 25	2 75
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.		20 00
HEMP, country, de w rotted,.....	pound.	6	7
" " " " " " " "	"	7	8
HOGS, on the hoof,.....	100lb.	8 25	8 50
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic,.....	"		
OATS,.....	"	43	45
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 00	5 00
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	102	110
Susquehanna,.....	"		
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" " " " " " " "	"		
" " " " " " " "	"	5 00	10 00
" " " " " " " "	"	6 00	8 00
" " " " " " " "	"	8 00	12 00
" " " " " " " "	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" " " " " " " "	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	2 10	2 20
Red, best,.....	"	1 75	1 85
inferior,.....	"	1 40	1 60
WHISKEY, 1st pf. in bbl's.....	gallon.	42	42 1/2
" " " " " " " "	"	39 1/2	
" " " " " " " "	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	
To Wheeling, ..	"	2 00	
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 63	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.....	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,.....	"	38 40	26 28
Howard st. Flour, sales limited, receipts very light.			

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	15	16
Shoulders,.... do.....	"	13 1/2	
Middlings,.... do.....	"		13 1/2
Assorted, country,.....	"	11 1/2	12 1/2
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,.....	"	20	25
CIDER,.....	barrel.		
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"	2 12	2 25
EGGS,.....	dozen.		12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	
No. 2,.....	"	9 50	
Herrings, salted, No. 1,.....	"	3 50	3 62
Mackerel, No. 1, —...—No. 2	"		9 00
No. 3,.....	"		5 00
Cod, salted,.....	cwt.	3 00	3 25
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....	par
Branch at Baltimore,.....	do
Other Branches,.....	do
	MARYLAND.
Banks in Baltimore,.....	par
Hagerstown,.....	do
Frederick,.....	do
Westminster,.....	do
Farmers' Bank of Mary'd, do	do
Do, payable at Easton,.....	do
Salisbury,.... 5 per ct. dis.	do
Cumberland,.....	1
Millington,.....	do
	DISTRICT.
Washington,.....	do
Georgetown,.....	do
Alexandria,.....	do
	PENNSYLVANIA.
Philadelphia,.....	do
Chambersburg,.....	do
Gettysburg,.....	do
Pittsburg,.....	do
York,.....	do
Other Pennsylvania Bks. 1 1/2 a2	do
Delaware [under \$5],.....	3a4
Do. [over 5],.....	4a2
Michigan Banks,.....	5a
Canadian do.....	5a

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltimore.

sep 27

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.

aug 30 Light near Pratt-st. whf.

NEW CHINESE MULBERRY,

Or Morus Multicaulis Trees and Cuttings, for sale.

THE SUBSCRIBER has a large stock of these trees, very thrifty well rooted plants, 2 to 5 feet high, raised in this country, under his superintendence, which would be sold according to size, on pleasing terms, and carefully packed and forwarded to order to any section of our country.

And from six years experiments in cultivating this tree, he is decidedly of opinion, that there is no tree so well calculated to raise silk. Any information relative to its culture, will be furnished to purchasers if requested.—Also the Italian white mulberry 2 to 3 feet, very cheap.

ROBERT SINCLAIR,

Clairmont Nursery, near Baltimore. se 20

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 24.

BALTIMORE, MD. OCTOBER 11, 1836.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER.

and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, OCT. 11, 1836.

SALE OF DURHAM CATTLE.

We were called upon a few days since to view seven calves of the Durham, and Devon breeds of cattle, purchased by Col. T. B. I. Hadley, of Jackson, Mississippi. The Durham calves consisted of a full bred Durham bull, and 2 heifers, 3-4ths blood, purchased of Lloyd N. Rogers, esq. each about six months old: the bull was bought for \$175, and the heifers for \$50 each. The 4 Devon heifers were about 5 months old, and were bought for \$25 each. We have not lately seen calves more to our liking. The Durham bull calf was sired by Young Bolivar, out of a favorite full bred Durham cow of Mr. Rogers, of great beauty and fine milking propensities, and is himself as promising a young Durham as we have ever seen. The two heifers of the same breed are also fine specimens of this favourite breed.

The 4 Devons are from the herd of Mr. Richard Caton, of Brookland-wood, and when we say they have descended, without alloy, from the original stock presented by that great Commoner of England, Mr. Coke of Holkham, to our accomplished country woman, the Marchioness of Wellesley, we are sure we have said enough to pronounce their eulogiums.

We are gratified to find that these fine animals have been taken to the fertile and wealthy state of Mississippi, as the very laudable example of Col. Hadley, cannot fail to exert an influence on the interests of its inhabitants which will prove of great benefit to all. And we are happy also to learn that this public spirited gentleman has bought several kinds of artificial grass seeds, with a view of introducing their culture in his state. For these praiseworthy acts he deserves the plaudits and the gratitude of every true hearted Mississippian, and we doubt not will receive them.

Woman and Wedlock.—The longer a woman remains single, the more apprehensive she will be of entering into the state of wedlock. At seventeen or eighteen, a girl will plunge into it often without fear or wit; and at twenty she will begin to think; at twenty-four weigh and discriminate; at twenty-eight will be afraid of venturing; at thirty will turn about and look down the hill she ascended and sometimes repent that she attained the summit."

The above paragraph we have seen so often of late, and it seems to be so much a favorite with our brethren of the editorial corps, that—at the risk of subjecting ourself to the imputation of travelling out of our province—in the language of Hamlet to the ghost of his murdered father,—we "will speak to it." We confess our love and veneration for the character of woman—lovely and pure as she comes from the hands of her Creator—lovely and pure as she would remain but for the perfidy and treachery of man—causes our blood to boil with indignation whenever we see them made the objects of ridicule or traduction—those weapons which the weak and the depraved use so often at the cost of truth and good manners, and only to gratify the malignant feelings of hearts incapable of enjoying the luxury of virtuous actions—those sure emanations from true nobility of nature. Why should a woman be held up as an object of derision?—because indulging in the promptings of feelings which are hallowed by the recollection of their every association, she should desire to change her condition in life, and become the honored mother of a family? Is there any thing monstrous in an aspiration so pure?—in a wish so cherished? We answer no—indignantly no. The Great Author of us all, has implanted in our hearts the desire of union—the good of society—the preservation of sound morals—the interests and happiness of the great family of man—require that this union should be consummated, in order that those great moral restraints which are alike essential to the decencies and comforts of life—nay, to the very being of man in his social relations,—should come in as barriers and safeguards against the pernicious effects of those unbridled passions which know no law, nor recognize any rule, that does not centre in their own crude and ill digested notions of self gratification.

Why should it be a marvel, that the "longer a woman remains single, the more apprehensive she will be of entering into wedlock?" Does not her every day experience teach—does it not enjoin upon her, with the force of bitter reality, that however consonant it would be to her principles—however consistent with her feelings and wishes—to become the partner of the man of her love—still the chances of being deceived in the object of her choice, is so great—that all her powers of discrimination, of caution, and of circumspection, are aroused, and she becomes indeed, "apprehensive," lest in taking a husband to her bosom she will run the hazard of planting there a viper who will sting her to her vitals?—and well may she indulge in such fears; for the world is replete with examples of monsters in human shape, who repay woman for her love—for love as pure as the icicle, and holy as the best affections of humanity can make it, with coldness and neglect—if not with positive perfidy and brutality.

On the other hand—is there any mystery in the fact, that a young and thoughtless girl of seventeen—just entering upon the world's pilgrimage—without experience—without tact—buoyant of hope—with a heart guileless and soft as "melting charity"—should be disposed to look upon the fair side of every thing which circumstances may throw in her way? Is there any mystery that such a creature, who, in the simplicity of her soul—in the innocence of her nature—should be disposed to "plunge" into matrimony "without fear or wit?" She had perhaps, been brought up under the fostering care of parents who had lived as man and wife should live—but to promote each other's happiness. She had, beheld matrimony in its most lovely form, and judging from the blissful scenes she had witnessed from her youth up, had rushed upon the conclusion, that if there be a paradise on earth, it is alone to be found in the connubial state. Is there any mystery in the fact that such an one should have formed too high an estimate of the character of him who was destined by his Creator to be the protector of woman?—that thus confiding, and deceived by the goodness of her own parents, into the belief that man is what he ought to be—and conscious of her own purity, she should make the fearful election, and instead of realiz-

ing those fond hopes, which her own unsuspecting nature had led her to form, she should find, when alas it is too late to look back, that her pathway is strewn with thorns? But, certainly, she should not be reproached with want of "fear"—for why should she "fear" to take *that step* which had rendered those who, through Providence, had given her being, so enviably happy? Nor should she be rebuked as being without "wit," because she had followed the injunctions of her nature, and obeyed the behests of *that book*, which should be as a law to us all.

For the "Farmer and Gardener."

AMERICAN SYSTEM OF WINE CULTURE.

It is not with a little diffidence I essay to write a piece, headed as above, for the American public: a diffidence arising from a fear of being accounted presumptuous in attempting to strike out a plan, in a measure *new*, in one branch of American agriculture; and, what would be still worse, of finding out, perhaps, after publishing, that I had been too bold, and consequently erroneous, in some positions. A diffidence too arising from a sense of insufficiency to recommend in an able and proper manner, what, I trust, I feel impelled to attempt out of a glow of patriotism in my breast, or an ardent desire to benefit my country in a very important item of her rural economy. This diffidence is heightened by a consciousness of being an obscure individual, known as a writer only by the imperfection, perhaps, of a few fugitive pieces, occasionally appearing in the "American Farmer," and its successor.

But seeing that scarcely any writings appear faultless under a strict criticism; or, as in morals, the best men are they who have the fewest faults; so in pieces for the press they are to be esteemed the most valuable only which have the smallest number of errors, I am emboldened to adventure my little production; hoping the motive for publication, and the subject matter, and not its defects, will be chiefly regarded by all candid readers.

If the same apathy prevailed in the American public as did some years since as to the importance of the vine culture, the writer would despair of making any impression through his feeble efforts: but he is encouraged by the fact that attention is considerably awakened up among the most intelligent and enterprising American agriculturists to the culture of the vine; and to its kindred branch the silk business; to the latter especially since the introduction into this country of the *Morus Multicaulis*, or new Chinese mulberry;—a tree making this business doubly profitable in suitable latitudes. Yet it may be fearlessly asserted that should these kindred branches of American enterprise continue to advance as rapidly as the fondest anticipations of enlightened patriots predict, it will be a course of years before *millions* of money will cease to be drawn annually from the country for the articles of silk and wine.

Legislative premiums, and public associations have lately given an additional impulse to the silk business. But little of such encouragement has been given to the rearing of vineyards and wine

making. Indeed less is needed. The latter business is more susceptible of being promoted by individual enterprise. The silk business has been advanced too by inventions in America rendering its manufactory more simple and expeditious.—That is America has taken the lead of eastern countries in this particular.

And it may be here asked, may not America make discoveries in the grape culture and in making of wine that may carry her in advance of Europe in these particulars? In reply it may be asked has any imported wine been found superior to some made by Mr. Adlum, Mr. Herbmont, and others in our country?

And if I mistake not, more wine has been made from an acre in this country than in Europe. If ever informed, I do not now recollect what is considered a large product of wine from an acre in other countries. But my impression is that a thousand gallons is a yield of rare occurrence.—Now not to name the large products of Mr. Adlum, and those of others, authenticated in the columns of the "American Farmer," I will mention in particular, Capt. Burlingham's case of Scuppernong vines yielding at the rate of 2000 gallons per acre; and that of Mr. Herbmont, with his Madeira, still more. And Mr. Longworth of Cincinnati, Ohio, made, as he informed me, more than 1600 gallons to the acre from the Isabella grape. And the case of a single vine (the Scuppernong) in the lower part of North Carolina yielding more than five barrels of wine every year, cannot we think find a parallel in any foreign land. Now in view of these facts we ask by what system or plan of culture were these vines made to yield so surprising a product? By the European, or one for the most part peculiar to our country? By the latter is the answer. The former would not only have prevented this yield, but as, in case of experiments often made in our land, have probably destroyed the vines. And again, by the culture of what kinds of vines were these products attained? *Native* or *exotic*? The answer is, *native* in all the cases named. Mr. Adlum, Mr. McCall, Mr. Herbmont, Mr. Longworth, and in short, I may venture to say, all who have profitably tried the wine culture to any extent in our country concur in the opinion that foreign kinds of vines and foreign manner of culture will not do in America. But I may say on the other hand that all these join in the declaration that native kinds of grapes, cultivated in the proper manner, will invariably produce a satisfactory result, both as to table use and wine. The unforced inference from the foregoing is, that the grape culture to prove successful in our country must be American throughout.—American in the selection of kinds, and American in the system of cultivation. As a system of culture is my professed object now, I shall wave for the present, or only mention incidentally a choice selection of kinds of grapes for American use.

By American system of grape culture, I mean one peculiar to our country, as contrasted with the one generally adopted in Europe.

The European system is briefly that of keeping the vines *humble*, or that of planting them close, and by trimming, not permitting them to attain but a few, say three or four, feet in height. Hence in all treatises on the vine culture, founded on the European plan, rules are given about trimming *rigidly*, or as might be said, when applied to this

country, *murderously*. And we do not use this last term unadvisedly: for the concurrent testimony of those who have tried it in America, is, that it not only proves *injurious*, but often *destroys* the vine. Let any one who may doubt consult the pages of the "American Farmer" and other standard American agricultural works.

Many Frenchmen, and we presume skilful in their own country at the vine culture, have totally failed on trial here, or in ours. Indeed, we may say that out of numerous trials made by foreigners in America at vine cultivation, none have succeeded at all except that by a colony of Swiss at Vevay, Indiana. And they too, I believe, saved themselves from failure by deviating from foreign systems.

I have lately understood from an intelligent gentleman residing in Alabama, that the legislature offered land to foreigners on condition of their cultivating one vine, at least, for every acre granted.

And that in the neighborhood, or part of the country where he resided (as to other places he was not informed) a number of Frenchmen were on bounty lands, but had had no success in cultivating vines. And, as I understood, the reason was, that they rigidly followed the system of culture established in their own country.

I beg leave to here introduce a circumstance that occurred within my own knowledge, serving to illustrate this part of my subject.

Some few months since, there travelled through this neighborhood a mendicant Frenchman, asking charities for some relatives left at one of the Cape de Verd Islands; backed by a certificate, purporting to be from the captain of the ship that brought him over the Atlantic. While at a near neighbour's of mine he spied some vines, I had furnished, of luxuriant and extended growth. He immediately drew forth his knife, and cut off some near the ground, and was about thus destroying the rest, stating that their growth was contrary to all correct rules of vine cultivation.

Some men, especially those of narrow, ignorant minds, and wedded to old established systems, are incapable of abstracting rules from applications, and differences of times, places and circumstances in any matters. And hence self-esteemed *infallibles*, with all their annoyances in politics, in religion, and even in agriculture.

One error, as well as difficulty, in succeeding with the grape culture in our country has been that of men of capital (men best calculated to succeed if right in the method) employing foreign vine dressers to attend exclusively to the vine culture for them. The result has always been what might be expected by those truly enlightened on the subject.

Having treated negatively on the American system of vine culture, I propose in a future number, (forthcoming as soon as time and press of business permit) to treat directly on the subject in hand and the advantages of the plan recommended.

SIDNEY WELLER.

Brinkleyville, Halifax co. N. C.

Sept. 26, 1836.

(TO BE CONTINUED.)

The shortest and best way to make your fortune, is to convince people it is their interest to serve you.

MR. BEMENT'S DURHAM HERD.

For the Farmer and Gardener.

Sir—Agreeably to your request I herewith enclose you a list of the pedigrees of my herd of Durham Short Horned Cattle.

1. *Carlos* is white, with red neck and some red spots on his body—calved Oct. 27, 1828.

Carlos was begotten in England by Charles 878
Dam Galatea, by Frederick 1060

g. Dam Graceful, by Major 401

g. g. Dam, by Comus,

g. g. g. Dam, by Denton, 198

g. g. g. g. Dam, by Weatherell's Bull.

2. *Superior* is a fashionable roan—calved July 1831.

Superior was got by Frederick,
Dam Yellow Rose, by Young

Denton, 465

g. Dam Arabella, (imported by S.
Williams, Esq.) by North Star, 460

g. g. Dam Aurora, by Comet, 155

g. g. g. Dam, by Henry,

g. g. g. g. Dam, by Danby, 944

Frederick was got by Wye Comet, Dam Tulip,
by Young Denton.

3. *Coriolanus* is a red and white roan, bred at
Three Hills farm—calved April
5th, 1835.

Coriolanus was got by Copson, (imported by S.
W. Smith, Esq.)

dam Dorinda, by Carlos,

g. dam Dew Drop, by Charles, 878

g. g. dam Dulcibella, by Frederick 1060

g. g. g. dam Delicia, by Major, 401

g. g. g. g. dam, by Comus, son of Meteor.

g. g. g. g. g. dam, by Marske.

g. g. g. g. g. g. dam, by Weatherell's Bull.

4. *Dyonicius* is a cream color, bred at Three
Hills Farm—calved September 15,
1835.

Dyonicius was got by Carlos.

dam Dulcibella, by Frederick 1060

g. dam Delicia, by Major, 401

g. g. dam by Comus, son of Meteor.

g. g. g. dam, by Marske.

g. g. g. g. dam, by Weatherell's Bull.

5. *Goliah* is red and white spotted, bred at Three
Hills Farm—calved April 10, 1836.

Goliah was got by Washington.

dam Georgiana, by Carlos.

g. dam Geraldine, by Devonshire, 966

g. g. dam Galatea, by Frederick, 1060

g. g. g. dam Graceful, by Major, 401

g. g. g. g. dam, by Comus.

g. g. g. g. g. dam, by Denton, 198

g. g. g. g. g. g. dam, by Weatherell's Bull.

6. *Sir Dimple* is nearly red, with some white
spots, bred at Three Hills Farm—
calved Sept. 21st, 1836.

Sir Dimple was got by Superior (No. 2.)

dam Dorinda, by Carlos (No. 1.)

g. dam Dew Drop, by Charles, 878

g. g. dam Dulcibella, by Frederick, 1060

g. g. g. dam Delicia, by Major, 401

g. g. g. g. dam, by Comus, son of Meteor.

g. g. g. g. g. dam, by Marske.

g. g. g. g. g. g. dam, by Weatherell's Bull.

No. 1. *Dulcibella* is white, with mottled head
and neck, bred by Mr. Whitaker,
Burley, England, and imported by

Benjamin Rodman, Esq. of New
Bedford—calved 6th March, 1826.

Dulcibella was got by Frederick, 1060

dam Delicia, by Major, 401

g. dam Comus, son of Meteor.

g. g. dam, by Marske.

g. g. g. dam, by Weatherell's Bull.

2. *Di Vernon* is white, bred by Benjamin Rod-
man, Esq. of N. Bedford—calved
December 6th, 1830.

Di Vernon was got by Devonshire, 964

dam Dulcibella, by Frederick 1060

g. dam Delicia, by Major, 401

g. g. dam, by Comus, son of Meteor.

g. g. g. dam, by Marske.

g. g. g. g. dam, by Weatherell's Bull.

3. *Delia* is white, with red on neck and shoul-
ders, bred by C. N. Bement—
calved Nov. 12th, 1833.

Delia was got by Carlos No. 1.

dam Dulcibella, by Frederick 1060

g. dam Delicia, by Major 401

g. g. dam, by Comus, son of Meteor.

g. g. g. dam, by Marske.

g. g. g. g. dam, by Weatherell's Bull.

4. *Dorinda* is white, with red neck and shoul-
ders—calved November 28, 1830.

Dorinda was got by Carlos, No. 1.

dam Dew Drop, by Charles, 878

g. dam Dulcibella, by Frederick, 1060

g. g. dam Delicia, by Major, 401

g. g. g. dam, by Comus, son of Meteor.

g. g. g. g. dam, by Marske.

g. g. g. g. g. dam, by Weatherell's Bull.

5. *Dulcedomum* is a pure white, bred at Three
Hills Farm—calved September
21st, 1836.

Dulcedomum was got by Carlos, No. 1.

dam Dulcibella, by Frederick,

No. 1. 1060

g. dam Delicia, by Major, 401

g. g. dam, by Comus, son of Meteor.

g. g. g. dam, by Marske.

g. g. g. g. dam, by Weatherell's Bull.

6. *Georgiana* is a red and white roan—calved
April 6th, 1833.

Georgiana was got by Carlos, No. 1.

dam Geraldine, by Devonshire 966

g. dam Galatea, by Frederick, 1060

g. g. dam Graceful, by Major, 401

g. g. g. dam, by Comus.

g. g. g. g. dam, by Denton, 198

g. g. g. g. g. dam, by Weatherell's Bull.

7. *Gertrude* is white, with a sprinkling of red—
calved April 4th, 1834.

Gertrude was got by Carlos, No. 1.

dam Geraldine, by Devonshire 966

g. dam Galatea, by Frederick, 1060

g. g. dam Graceful, by Major, 401

g. g. g. dam Comus.

g. g. g. g. dam Denton, 198

g. g. g. g. g. dam, by Weatherell's Bull.

8. *Sylvia* is mostly red, with some white spots,
bred by the subscriber—calved
May 30th, 1834.

Sylvia was got by Copson, (imported by G. W.
Smith, Esq.)

dam Susan, by a son of Rocking-

ham, also imported by G. W. Smith,

Esq. a great milker and valuable

breeder.

g. dam, by North Star, 459

9. *Buelta* is a roan, bred by the subscriber, at
Three Hills Farm—calved May
2d, 1835.

Buelta was got by Superior No. 2.

dam Belina, by Bolivar, 804

g. dam Young Flora, by Cœlebs.

g. g. dam Flora, by Cœlebs.

10. *Bell Flower* is white, with some red on neck
and body—calved April 3d, 1836.

Bell Flower was got by Superior, No. 2.

dam Belina, by Bolivar, 804

g. dam Young Flora, by Cœlebs.

g. g. dam Flora, by Cœlebs.

In addition to the above list, I have several
grade cows and heifers, from $\frac{1}{2}$ to 7-8, making in
all twenty-two head. They have run on very
good order, with the exception of one or two.
Owing to the extreme drought our after, or fall
feed has been very scant.

In making some experiments with a lactometre
I find the higher bred cows gave the richest milk,
averaging 20 per cent. cream.

The numbers refer to the English Herd Book.

The bulls and some of the cows and heifers
are for sale, at reasonable prices, taking blood
into consideration.

Were it not so difficult to procure correct por-
traits of animals, I would forward you some, for
your valuable paper, which would give a better
idea of the superior form of this beautiful breed
of cattle, than a column of written description.

Respectfully yours,

CALEB N. BEMENT.

From the United States Gazette.

BEET SUGAR.

To J. R. Chandler, Esq.—Sir—Perceiving by
the many applications made to me for informa-
tion respecting Beet Sugar, that not only a very
general interest prevails on the subject, but also
some very erroneous views, I take leave, through
your wide circulating paper, to publish a few of
my ideas thereon, being the conclusion I have
come to, after numerous experiments, as well as
from information I have obtained from the most
scientific French authorities.

1. An establishment will not clear its expense
unless it be calculated to manufacture at least
from two to five hundred pounds of Sugar per
day, so that the idea of individuals in this coun-
try manufacturing profitably for private consump-
tion is preposterous; their sugar would stand
them, including labor, a dollar per pound.

2. The greatest advantage will be derived
from steam power, which will accomplish three
objects at least, viz—first, the rasping of the
beets; secondly, the reducing of the liquor "in
vacuo;" and thirdly, the boiling of the syrup
without the risk of burning it, of which the beet
syrup is in much greater danger than the cane
syrup; the proof of the former being some de-
grees higher than that of the latter.

3. The juice of the beet decomposes in the
summer in this country in less than two hours.
I have known the viscid fermentation commence
in twenty minutes. When this once occurs, su-
gar can never be obtained from it, in a large es-
tablishment in this country, it must be prevented
by chemical agents.

4. Not only must the acid be neutralized, but the mucilage must be chemically coagulated, the cerate decomposed, and the malate of lime extracted, or the crystalizing will be rendered extremely difficult, if not totally impracticable in many cases, and good sugar will never be made.

5. I am persuaded the refining process can be profitably united to the manufacture of the raw sugar.

6. The profits are incredibly increased in proportion to the extensiveness of the establishment, but no one ought to engage in this business who has not *mind*, as well as a capital.

7. One half of the manufacturing expenses will be saved by a scientific arrangement of the apparatus, so as to dispense with, as much as possible, manual labor.

8. Understanding from various farmers within from ten to twenty miles of this city, that they are perfectly content with about twenty or twenty-five dollars per acre's produce, and as each acre ought to yield on an average 40,000 lbs. of beets, which will produce 2400 lbs. of sugar, I have made the following estimate. Supposing the apparatus to be capable of working only about 100 lbs. of sugar per day, it would take twenty-four days to manufacture 2400 lbs. of sugar.

EXPENSES.

One acre of Beets (40,000 lbs.)	\$25 00
Two men for 24 days,	48 00
Two boys for do	22 00
Fire and rent, &c.	40 00

Total, \$135 00

RECEIPTS.

Quantity of sugar from the acre of beets, would be 2400 lbs. which at 10 cents per lb. would be	\$240 00
Beet cake and molasses, &c.	20 00

Total, \$260 00

Expenses, 135 00

Profits, \$125 00

By this general statement it will be perceived that there will be nearly cent per cent profit, but then the interest of the capital sunk in the purchase of machinery is not included. On the other hand, the two men could work twice or four times as much, and the apparatus for the increased quantity cost very little more.

If you think these remarks worth publishing, you are welcome to them, and I am, sir, your very obedient servant,

W. W. SLEIGH,

Hamilton Village, corner of Cedar Lane.
September 30, 1836.

From the Philadelphia Inquirer.

TO THE FARMERS OF THE U. STATES.

That care and skill have improved fruit trees, vegetables, and our domestic animals, are facts known to all classes of husbandmen; and the advantage of rearing cattle from the best breeds is now well understood all over America. The advantages that accompany procuring the best grain for seed is as yet but partially understood and very little attended to.

Repeatedly sowing some kinds of grain on the

same land, is in many cases followed by an evident decline in the quality; still this it must be observed, is not a uniform consequence; there are many and well authenticated instances where the change to a new soil and climate is accompanied with a deterioration, and in others as great an improvement has taken place.

As it is known that grains, &c. in some climates and soils degenerate to a minimum; sometimes in quality, in others in quantity, and frequently in both; a practice calculated to remedy these disadvantages is of great importance to the agriculture of the United States. On the present occasion it is our object to point out what may be done, thereby showing what is done in other countries, and under circumstances far less favorable to the husbandman, or to the operations of husbandry, than in America. In Scotland for example, the climate is cold, wet and stormy; yet by care and industry crops are produced, remarkable both for quantity and quality. There the greatest attention is paid to the changing of seed. The low countries procure their seed potatoes from the high districts at great expense of money and labor. The whole oat crop of some districts is bought for, and sowed for seed; this is the case with a portion of country called Blainsley, that lays south of Soutria Hill.

In no country has the culture of clover been more beneficial, or attended with better success than in Scotland, yet the climate is so unfavorable to the ripening of cloverseed, that nearly the whole has to be procured from England or Holland. The farmers of that country frequently change the wheat seed, and procure the best that is to be had, paying very little respect to price, and the greatest attention to quality.

It would appear that the principle by which the Scotch farmers are guided to the results they obtain, is to select their seed from those districts where it is grown in the greatest perfection from the climate and soil being best adapted to the plant. Thus they choose seed oats and potatoes of their own growing, these being plants best adapted to mountainous, cool and moist regions; and clover and wheat seed from England and Holland, which are comparatively low, warm and dry, and better adapted to their production.

It is well known that in America, our oats are not good, they have little kernel or meal; and the quality of our barley is not what it ought to be.

It is to the following circumstance the present address owes its existence.

In the year 1833, a well informed practical farmer visited Pennsylvania with the object of seeing as much of our practice of farming, soil, and climate, as a short stay here would permit. On his return to Scotland, he procured and sent to his friends in Philadelphia some Angus Oats, Hopeton Oats, Barley, Wheat and Rye grass; the cask containing the seed, miscarried and did not arrive here until the Fall of 1835.

Some of each kind of these have been sown here; the wheat came up very thin; it is presumed the seed suffered from the long voyage.—On the 18th April, 1836, the Oats and Barley were sown on rather poor but fresh loam. It is true, the season has been cool, damp and favora-

ble to these grains, still their success has surpassed any thing that could have been calculated on. The Barley and both kinds of Oats are of superior growth in strength of stem, as well as thickness on the ground; they would lose nothing in a comparison with the crops of Oats or Barley of any country, and are likely to suffer from excessive growth, causing them to lodge. One kind of the Oats commenced shooting into ear about the first of July, and the other about the tenth; the marks of which were placed to distinguish the one from the other have got displaced, and this accident prevents knowing whether it is the Angus or Hopeton Oats that first puts out the ear.

Now let us inquire into the economy of farmers adopting the practice of annually supplying themselves with new seed grain—and found our calculations on a farm where about 20 bushels of Oats are sown each year; the farmer of such a piece of land could supply himself with an annual change of his Oat seed in the following manner. It is presumed that each bushel of the imported Oats he sows, will produce 10 bushels; then by annually buying two bushels, their produce would yield the 20 bushels required for sowing on his farm. Suppose the price of the imported Oats to be \$1 50 cents a bushel, the 2 would cost \$3,—and the price of country oats was 50 cents, the two would cost \$1. The expense of exchanging the seed would be per annum \$2. The estimate is not given as a matter of accuracy, but as a formula by which every one can make his own calculations.

In procuring a change of seed, there are other points necessary to be attended to besides the quality of the grain, and one of these is to guard against bringing with it the weeds incident to the country or fields where it has grown: for want of attention to this, there are farmers who have introduced into their fields, along with the clover they sowed, the narrow leafed plantain, which arrogates to itself a place which would otherwise be occupied by clover, to the detriment of his hay both in quality and quantity, and that more serious curse, Bensalum clover or white daisy; all this is the result of their not taking sufficient care in the selection of their clover seed.

In the British Islands, their Oat and Barley fields at some seasons, are entirely yellow; nothing is to be seen save the bloom of the wild mustard, in some districts called Sheldrics; and this is not the only one of this class of yellow flowering spring weed: in Wheat they have what is here called Cockle, the seed of which is detrimental to superfine flour; all these should be guarded against by the European agent; and to prevent mischief, the seed after it arrives here should be resifted in a sieve that will separate the weeds from the pure grain, always collecting and burning the obnoxious seeds.

In proof of the sincerity, the writer entertains a favorable opinion of this system, he will import for next season's sowing, one hundred bushels of selected Barley, one hundred of each variety of Oats, already spoken of, and, it being too late for receiving wheat for the ensuing sowing, measures will be taken for bringing to this country wheat for the following year.

Such persons as take an interest in renewing their seed grain, are invited to apply to the subscriber, who will furnish them with any quantity, not less than a bushel. The cost will be governed by the price abroad, and the expense of bringing the articles here. The transaction will be attended with considerable trouble, and the limited extent of the operation will satisfy all, who reflect, that there are other motives for undertaking the business than that of making money.

Letters, post paid, will be duly attended to, if addressed to JAMES RONALDSON,
No. 200 South Ninth-street, Philad.

ECONOMY IN FODDER.

If ever there was a time when economy ought to be used in this article, it is the present. It is hard however to start people out of old customs and habits, even if they know that a departure from them will ensure a saving and consequently a profit. The use of a straw cutter has been proved, by those who are competent judges, and who were careful to experiment thoroughly upon their use, has been found to afford a saving from 30 to 50 per cent. and yet how very few there are who use them.

It may not be amiss to republish some of the experiments on this subject, in order to remind those of our readers of them, and to give information to those who never heard of them.

The following method of keeping Horses is from an English publication. The mode is somewhat more troublesome than the common system, but the saving to be made will more than repay the extra labor.

ECONOMICAL METHOD OF KEEPING HORSES.

BY HENRY SULLY, M. D.

Having received innumerable letters from gentlemen who keep horses, requesting a description of my plan of feeding, I shall save much trouble both to others as well as myself, by laying my system before the public. Having pursued the plan above 17 years, I am enabled to appreciate its full value, and, being perfectly satisfied of its superior excellence, I hope to continue the same as long as I keep horses.

Most people who know me will allow, that horses in my employ enjoy no sinecure places, and few people can boast of their cattle being in better working condition or more capable of laborious undertakings than mine.

The loft above my stable contains the machinery for cutting chaff and grinding corn.—From this loft each horse has a tunnel of communication with the manger below, and a tub annexed to each tunnel in the loft for mixing the ingredients composing the provender.

There should be no rack in the stable, because this may tempt the groom to fill it with hay, and thus by overloading the horses' stomach, endanger his wind, to say little of its expense and waste, for it is a well known fact, that if a horse has his rack constantly replenished with hay, he consumes and spoils upwards of 30 lbs. per day.

The manger with which the tunnel communicates, should have cross-bars, of firm oak, placed

at the distance of 10 or 12 inches from each other, to prevent the horse from wasting his provender in search of the grain it contains, and this space between the cross-bars, allows the horse plenty of room to take his food.

The chaff-cutter I make use of, is manufactured by Mr. Wilmott, a very ingenious mechanic, who resides about five miles from Taunton, on the road to Wiveliscombe. He also provides corn buisiers, of the best construction, and any person keeping three or four horses, will save the prime cost of his machinery the first year of its trial, and the horses themselves, thus fed, to use the language of horse keepers, will always be above their work.

When the provender is thoroughly mixed in the tub, previously weighing out each ingredient, the mixture should be given in small quantities at a time, many times a day; and at night, enough is thrown into the tunnel to last till morning. This process will be found of very little trouble to the groom, who will only have to go into the loft six or eight times a day. As the component parts of the provender are weighed separately for each horse, we are certain he has his just proportion; and I have hereunto annexed my scale of feeding in four classes, for it sometimes happens that some of the ingredients cannot be procured, and at other times that it may be better to substitute others; but, whatever grain is given, it should always be bruised, or coarsely ground, and carefully weighed out; for by weight alone, is it possible to judge of the quantity of farinaceous substances the horse consumes; it being well known that a peck of oats varies from seven to twelve pounds; consequently if the provender were mixed by measure there would be frequently an uncertainty as to quantity. Wheat varies from 16 to 12; Barley, from 13 to 16; Peas, from 17 to 15; Beans,* from 17 to 15 per peck. And as wheat, beans, peas, barley, and oats, are equally good, and of very trifling difference in price when their specific gravity is taken into consideration, I am equally indifferent which grain I use, but I should always prefer boiled or steamed potatoes for hard working horses, to be a component ingredient, whenever they can be procured.

As I call all ground or bruised grain of whatever description, *farina*, it will be so distinguished in the following

	SCALE.			
	Class 1	Class 2	Class 3	Class 4
Farina, consisting of				
bruised or ground peas	5 lbs.	5 lbs.	10 lbs.	5 lbs.
wheat, barley, or oats	5 lbs.	5 lbs.	10 lbs.	5 lbs.
Bran, fine or coarsely				
pollard,	—	—	—	7 lbs.
Boiled or steamed				
potatoes mashed in				
a tub with a wooden				
bruiser,	5 lbs.	5 lbs.	—	—
Fresh grain,	6 lbs.	—	—	—
Hay cut into chaff,	7 lbs.	8 lbs.	10 lbs.	8 lbs.
Straw, &c. in chaff,	7 lbs.	10 lbs.	10 lbs.	8 lbs.
Malt dust, or ground				
oil cake,	—	2 lbs.	—	2 lbs.
Salt,	2 oz.	2 oz.	2 oz.	2 oz.

* The English horse bean is probably here meant.—ED. M. FAR.

By the above Scale it will be seen, that each horse has his 30 lbs. of provender, in 24 hours, which, I maintain, is full as much as he can eat. The two ounces of salt will be found to be an excellent stimulus to the horse's stomach, and should, on no account, be omitted. When a horse returns from labor, perhaps the groom will see the propriety of feeding him from his tub more largely, in order that he may be the sooner satisfied and lie down to rest.

Whenever oat straw can be procured, it is generally preferred; and some like to have it cut into chaff without threshing out the oats; but this is a bad plan, for in preparing a quantity of this chaff, unequal proportions of oats will be found in each lot, so that one horse will have too large a portion, whilst others have less than they ought, although the portions are accurately weighed.

The only certain method, then, is, to let the grain, of whatever description, be weighed separately from its straw, and the keeper of cattle will soon satisfy himself that his cattle are in want of nothing in the feeding line. Many people object to potatoes, and think them unfit for working horses; but, from many years' experience, I am enabled to recommend them as a constituent part of the 30 lbs., and am convinced, that it is as wholesome and nutritious a food as can be procured for laboring horses, which are called upon sudden emergencies, to perform great tasks, as has been abundantly proved by Mr. Curwen, M. P., who kept above one hundred horses on potatoes and straw, and always found that their labors were conducted better on this than any other food.—See Curwen's Agricultural Hints, published 1809.

Wiveliscombe, Somerset, Sept. 12, 1836.

[From the Maine Farmer.]

VEGETABLE PHYSIOLOGY.

ITS LAWS IN REGARD TO THE FLOW OF THE SAP.

MR. HOLMES:—In reading this day in the first vol. of the Maine Farmer, at the 242 p., I was somewhat amused by the controversy about the question, whether there is more sap stowed away in the roots of trees and plants in the winter than the summer. After giving both the learned gentlemen's controversy full credit for their wit and skill in it, I take the liberty of giving some of my views on the same subject.

To illustrate my views, I will quote from Dr. Doubty, the following sentiment,—“The state of the sap, weather, &c., and not its location,” [that is the sap] “are more worthy of the farmer's notice when he cuts his bushes, than whether the sap has fled to the roots for future mischief, or any other olden ideas.” And to sum up the whole in a few words, he seems to doubt entirely the correctness of the idea advanced by the Editor of the Farmer previously expressed, “that at certain seasons of the year the sap is principally in the roots.”

In reply, H. responds, “Will he [Dr. Doubty] take a peep at the Burdock before his door?—full of sap,—how will it be next January?—will that broad leaf and stem be as full of moisture as it is now, or will the sap have descended to the roots?—No, Sir. But this does not prove that the sap has descended into the roots. Take a

walk in the field or grove after a frosty morning in autumn, and the sun has arisen and melted away the frost, and the leaves begin to droop, you will have undoubted evidence that much of the sap goes off with the detached leaves, and is stowed away for a different use than that suggested by you. That the sap in these stalks which were killed by the frost, goes off principally by evaporation, as the sense of smelling sometimes strongly indicate. (1)

But says H. to brother Doubty, "If you are a veritable Doctor, you ought to know that it makes a very material difference at what time you gather roots for medical use. The Blood root, for instance, when gathered in summer, has less of the peculiar juice in it than it has at the close of autumn, because the sap is abroad in the leaf, and has not been elaborated and snugly stowed away in the roots for future use. True, but does this prove that this same substance rises in the spring to form more of the substance of the plant or tree? What are the facts that support this idea? (2)

From my own observation, I think the proof is rather against it; that is, if it be meant that the roots are any more a reservoir of the sap or fluid not "converted into cambium," than the trunk or branches. Take the trunk and branches of one tree at the time you say the sap is snugly stowed in the roots, cut off above ground; and the trunk and branches of another, with the roots entirely divested of all connection with any means of support, except air, heat and moisture; keep them in a place favored with heat enough to cause the principle of life in them to expand, yet not so much as to dry them up, and they will (many kinds at least) form buds and leaves, and sometimes branches of short extent; but the one which had the root, will, is it believed, have little if any the advantage. (3)

Again, in the latter part of winter, before we could reasonably suppose the sap in the roots has left its snug retreat, you may go to the forest and tap the sugar maple tree in a warm day, after a frosty night, and obtain a copious flow of sap.—No one, it is believed, will attempt to say, this comes from the roots, or that the roots could by any process be made to yield more. (4)

Again, will not a clover plant, and perhaps most of the grapes, cut off when the sap is in the leaves and blossoms, and of course cannot descend into the roots, start as vigorously in the succeeding spring as though the sap had the opportunity afforded by maturing the plant, to stow itself away in the roots. My experience says of clover, it is more likely to die when it stands until ripe. (5)

I know it may be said the maturing of the seed exhausts the plants, and I cannot prove to the contrary; but it does not seem reasonable to me that such small seeds alone should produce this effect.

As to the fact that bushes, &c., if cut at certain seasons of the year, are more sure to be killed; I am unable to perceive the proof it affords to the point at issue either way. The condition of the plants, shrubs or trees, are different, and the general as well as distinctive laws of different classes are little understood.

With respect to trees, I would observe however, that the ripening of the wood in autumn is

essential to the safety of the life of the tree, as the top is concerned. How far the roots may be affected by the same causes we know not. It seems most likely to me, by taking away the trunk and branches of trees and shrubs just as the growth of the wood ceases for the year, the roots are deprived of that principle in the sap which gives them ripeness, and of course, life and durability. The roots contain the principal organs by which the tree receives its food, and the branches and the leaves, those organs which prepare this to support the life, and the growth of the tree; and without this the roots are as effectually killed as the top is without the roots.

J. H. J.

Peru, August, 1836.

NOTES BY THE EDITOR.—(1.) You will please to recollect friend, that we said the sap descended *principally* into the root. It was not denied that some of it was deposited in the buds, branches, &c. In regard to the evaporation when the leaves are killed by frost, no one doubts that.—But as a general rule, the leaves have performed their office before the frost comes. Previous to this they exhale a large quantity of moisture, but not the sap. By sap we mean the fluid that has been prepared in the leaves and become changed into matter for the increase of the plant or its fruit.

(2.) The facts are that this plant pushes out very early in the spring. We have seen it blossoming by side of a snow bank. If it had not a supply of ready formed sap for the purpose, how could the young stem, &c. have been formed? It had no buds and branches above or below ground full of sap all ready for its use. It must therefore have drawn from the fluid stores of the roots. Again, soon after the leaves, &c. start, the root loses its peculiar juices, and becomes comparatively inert. Why is this if it has not expended them in the formation of the young stem?

[3.] Why should it? By pulling up the root you expose an additional surface to evaporation without a competent chance to supply the loss.

[4.] Well, Sir, suppose you cut into a sugar maple in the autumn, as soon as the leaves have fallen, what will be the result? Can you fill your sap trough as quick as in the latter part of winter? And when it does flow—in March or February—doesn't as much come from below as from above and a little more?

If it was all lodged in the trunk or buds, why not flow any time after it was formed?

[6.] We find some difference between pruning a grape vine in the fall and in the spring. In the fall when the sap has formed and *descended*, there will be no bleeding of the vine if cut, but in the spring after the stimulus of the season has roused the dormant roots, if cut, the vine oftentimes bleeds to death—whence comes the sap? Not from the branches but from the roots below.

In regard to clover it is undoubtedly biennial, and if that is the case it dies a natural death after perfecting its seed. But if cut before perfecting the seed it may be kept longer. Indeed many biennials may be kept alive more than two years, by preventing them from blossoming and going to seed. The sap of grasses, &c. evidently is deposited during winter in the lower joints and crown

of the roots. We once received a choice strawberry root late in the fall. We put it in what we thought to be a safe place for the winter, but in the spring found that the roots had been frozen and killed. On examining carefully we found the appearance of a live spot in the centre of the crown of the root, and by careful attention we at length succeeded in saving it. Now if the sap had not descended into it from the leaves in the fall it would probably have perished wholly.

COTTON CROP IN GEORGIA.

The Milledgeville Recorder, of the 20th ultimo, says:—"The worm and rot, we are, from various sources informed, have made extensive havoc upon the growing crop of Cotton. We are fully satisfied, from what we can learn, that there will not generally, through this part of the State, be exceeding, if that much, two thirds a crop made. One gentleman alone, from an adjoining county, informs us, that on two of his plantations, embracing four or five hundred acres, he is well assured, that one bushel of new forms or blossoms, could not now be found, they having been entirely devoured by the worm. Hence, from the early growth, and that only in part, will there be any thing matured. The grain and provision crops are generally abundant."

COTTON CROP IN ALABAMA.

The Marion (Perry county, Ala.) Mercury, of the 17th inst. says: "On comparing the various accounts from the different parts of this State, we are inclined to the belief that we shall raise about an average crop. In some parts of the State, and in some spots in almost every section, there has been much well founded complaint of the injury done by the insects. Very early in the spring the leaves were almost consumed by the lice. The thrifty though tender stalk, however, sustained, and at length outgrew that injury. Then came the worm which perforated the bolls and caused them to drop. That this last injury has caused the crops to be much shorter than it would have been, there can be no doubt. Where the worm has operated extensively, the weed is unusually large and luxuriant, on account of the excess of sap which would have gone into the bolls. On the other hand, where the worm has not been, the quantity will be something greater than usual, the stalks being well grown and remarkably well balled."

RICHMOND FLOUR MARKET.

The extent of the failure of the Wheat Crop may be ascertained by reference to the quarterly returns of our worthy Flour Inspector. By this it will be seen, that compared with the corresponding quarter of last year, there has been a falling off in the Richmond inspection, of *twenty six thousand nine hundred and forty-four barrels!*

From July 1st to Oct. 1st, 1835	43,067
Do do 1836	16,123

Deficiency 26,944

We shall note the disparity at other places of inspection, and endeavor to furnish our readers with the means of estimating the loss throughout the State. The abundance of the corn crop will

in some measure alleviate the evil, but the abstraction from the income of Virginia must be seriously felt. The poor will deserve more than the usual attention of the benevolent during the coming winter.—*Richmond Comp.*

From the Southern Agriculturist:

THE NUT GRASS.

MR. EDITOR: A writer under the signature of "Blue House," has, in your February number, given some directions concerning the management of nut grass, which I have pursued, and found, in part, beneficial. He has, however, committed a capital error in recommending large beds in the first instance. The reverse of this, is the proper course. The beds when made small and flat, will admit of successive haulings, which alone, are found to be efficient. The grass when hoed, will in a couple of days appear again, with renovated strength. But its being buried alive, is what it cannot stand. It is a savage mode of war, which it does not appear to recognize among the usages of honorable war. But an enemy whom no treaty can bind, but who is the determined foe of human intercourse, has no right to claim the civilities of human intervention. I would bury him, Mr. Editor. It is the only sure way of getting rid of him.

A friend of mine, the other day, called my attention to his mode of treating this scourge, the effects of which, were most obvious. A piece of ground which he had lying fallow, and which was much infested with this grass, he had thickly blanketed over with pine trash. He told me he had tried every thing, and in all had failed to destroy this grass; until, at length, he had nearly determined to abandon his plantation. Just about this time, he heard of the wonderful cures made by the Steam Doctors, and he at once conceived the idea of steaming his enemy; he accordingly had a portion of this nut-grass patch, covered with pine-trash to the thickness of six inches, any thing shorter will not cause the perspiration to flow fast enough; and believe me, Sir, when I saw the portion of ground alluded to, which was 4 months after the operation, I did not see a spear of grass, whilst the portion adjoining, was literally covered with it.

Is "Blue House" in earnest, when he expresses the belief that hogs will destroy the grass? If he is, tell him, my neighbors will be at the trouble of driving their hogs to his assistance, if he will but say so.

Yours, &c.

JAMES ISLAND.

Postscript to an article in the *Sot. Agriculturist*.

P. S. If your correspondent Calomel allow his hogs and poultry to range under his fruit trees, he will not longer complain of their being gummy and falling from the trees half grown. The hogs will devour the fruit which falls with the worms in it, the poultry will destroy the little beetle which causes the fruit to rot, and Calomel must, himself, pick out the worms which he will find in his trees near the surface of the earth. Ours is truly a fruit country, but it is really astonishing how little good fruit is to be seen; had our climate been less favoured, our own exertions would have been greater. A great change for the better, has, however, taken place within a

few years, and I flatter myself, Mr. Editor, that we shall soon see our markets supplied with a-bundance of all the finest kinds of fruits which our bountiful climate requires so little exertion or skill to bring to a degree of perfection, not known in less favoured regions.

From the Genesee Farmer.

STONE WALLS.

One of the most significant marks of farming improvement which greet the eye in most parts of our country, is the rapidity with which the half rotted basswood worm fences are giving way to stone walls. The zeal shown in this matter may be regarded as a token as good in two ways:—first by substituting durable fences for those that are perishable, and thus enhancing the positive value of farms; and secondly, by clearing fields from the loose stones that encumbered them, and thus rendering them much easier to till, and more productive.

The general custom we perceive is, to lay the stones into what is called half wall, or wall two and a half or three feet high, then place a long pole of some durable timber, such as chesnut or black ash, properly supported on the wall, then stake, and a single rail completes the fence.—Some set posts in such a wall, and put on boards above the stones to a sufficient height. This makes a handsome fence, but from some little experience with both kinds, we think it less durable without repairs than the other, as winds acting on the boards and posts rarely fail in a short time to loosen them, by throwing down or displacing the stones intended to confine them. There are but comparatively few farms on which good flat stones can be found, either loose on the surface or by quarrying, sufficient for the purpose of fencing, consequently small round ones are obliged to be worked to a great extent, rendering such walls more liable to be thrown down by frost or accident, than they otherwise would be. Where such flat stones can be found, and in limestone districts they abound, whole walls, thoroughly constructed, will in the end be found far the cheapest fences that can be devised. Experience has shown that where walls are built of such stone as renders them liable to injury from frosts, that those which are constructed north and south stand longer than those built east and west. The reason of this is plain. If the whole wall is equally lifted by the frost of the winter, that side which is thawed first will settle first, and the balance of the wall will thus be destroyed. The earliest thawing will of course take place on the south side, and walls exposed to this action of sun and frost most generally fail. Those walls built north and south are exposed to an action more equal in its effects and usually more durable. To guard against the action of frost as much as possible, walls in all cases should have a furrow run by their side, and turned against the wall, that the water may, as far as practicable, be kept from standing under it, and thus unequally softening the ground. In building walls, admitting the possibility of an occasional failure, the farmer has one consolation: the materials do not rot—when once on the spot, they remain where they are wanted, and if they sometimes tumble down, they can be built up again.

DAHLIAS.

THIS Splendid Flower has but recently been introduced into this country, and consequently but little known, and although I have mostly devoted my attention to the culture of articles of the most useful class, yet flowers are not without their usefulness; the more we adorn our yards and gardens with flowers, and useful shrubs and trees, the more we increase our love for home, the spot alone where true happiness is to be found; and having cultivated this flower rather extensively for three or four years, I am enabled to judge of its merits, and think the various beautiful colors and shades, large size of its flower, long continuance in bloom, and ease of culture, are properties deserving the notice and culture, not only of the wealthy, but also of every cottager in the country.

It is only necessary to see one of them in full bloom, containing at one time from 10 to 30 flowers, from 3 to 5 inches in diameter, to become an admirer of it, especially when we see a group of them of all colors, stripes and shades. They commence blooming here the middle of June, and continue until frost.

For further information, I herewith add an extract from J. C. Loudon's Practical Gardening, published in London, 1827—since then they have been very much improved in many respects.

"The roots of the Dahlias are tuberous, and fasciculated, the stems rise from 5 to 8 feet, covered with large compound leaves, resembling those of the Dwarf Elder, and with side branches bearing numerous flowers of a great variety of colors, which appear in August, and continue until frost; the plant grows wild in Mexico, in sandy meadows, and was sent to Madrid in 1789—from thence to France, Germany, and England; at present the Dahlia is the most fashionable flower in this country, and the extent of its culture in some of the nurseries is truly astonishing, especially in that of Lee; nor is this to be wondered at, as Sebline observes, for, independent of the great beauty and diversity of the flowers, they are in perfection at a season when, till they came into notice, our gardens had but little ornament."

CULTURE.—Plant the roots, or potted plants, into the garden as soon as received, any time between the first of May and middle of June, in rich well prepared ground, 3 to 4 feet apart, uninumbered with shrubs or other plants, each plant must have a stake planted with it 18 inches deep and 5 to 7 feet high, according to the height of the plants, and tie up the plants to it as they grow.—Take up the roots after the tops are killed by the frost, and after drying them a few days, pack them away in a cellar in dry sand or mould, safe from frost. Priced catalogues of potted plants and roots of this flower, can be obtained gratis at my Nursery, or at the Maryland Agricultural Repository, Light st. Baltimore.

ROBERT SINCLAIR.

P. S. Samples of these flowers may be seen at the horticultural room, and our store in Light st., or at the Nursery, where there is the most extensive, and best bloom that ever has been in this State—to see them the citizens of Baltimore are respectfully invited. R. S.

FOR SALE

AT Clairmont Nursery, one Sow and Boar of the thin Rind breed of Hogs, the first about 2 years old, and the latter 1 year,—a rare chance to get at once into this breed—Price \$25. Also a few pairs of Barnitz Pigs, and large Westphalian White Geese—the first \$10 a pair, and the latter \$5—coops, feed, and drayage, 75 cts. each.

ROBERT SINCLAIR.

P. S. \$2 each will be given for a few full grown Hen White Turkeys, pure blood and unmixed, delivered at our Store in Light street. R. S.

CONTENTS OF THIS NUMBER.

Sale of Durham Cattle—Woman and Wedlock—American system of Wine culture—Pedigrees of Mr Bement's Durham herd—Mr Sleigh's essay on Beet Sugar—to the Farmers of the United States, on seed, by James Ronaldson—Economy in fodder—Vegetable Physiology—Cotton crop in Georgia—do in Alabama—Richmond flour market—the Nut Grass—hogs and poultry in orchards—stone walls—prices current, advertisements.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	6 75	8 00
CORN, yellow,	bushel.	98	102
White,	"	94	96
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland, extra,	"	18½	20
Louisiana 19—Alabama	"	—	21
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	—
Do. do. baker's,	"	—	—
Do. do. Superfine,	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	—
" " wagon price,	"	9 50	—
City Mills, extra,	"	—	9 50
Do.	"	9 00	9 25
Susquehanna,	"	—	9 25
Rye,	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	—	20 00
do. in bbls.	bbl.	—	4 50
GRASS SEEDS, red Clover,	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	2 25	2 75
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	8 25	8 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LINE,	bushel.	35	37
MUSTARD SEED, Domestic,	"	—	—
OATS,	"	43	45
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 00	5 00
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGE,	pound.	3	4
RYE,	bushel.	102	110
Susquehanna,	100 lbs	3 50	4 50
TOBACCO, crop, common,	"	4 50	0 00
" brown and red,	"	7 00	7 90
" fine red,	"	—	—
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	2 10	2 20
Red, best,	"	1 75	1 85
inferior,	"	1 40	1 60
WHISKEY, 1st pf. in bbls.	gallon.	42	42½
" in hhds.	"	39½	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling,	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,	"	48 55	28 30
Three fourths Merino,	"	45 48	26 28
One half do,	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,	"	38 40	26 28
Howard st. Flour, sales limited, receipts very light.			

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	15	16
Shoulders,	"	13½	—
Middlings,	"	—	13½
Assorted, country,	"	11½	12½
BUTTER, printed, in lbs. & half lbs.	"	20	37
Roll,	"	20	25
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,	"	25 00	45 00
Dry,	"	9 00	12 00
CORN MEAL, for family use,	100lbs.	2 06	2 12
CHOP RYE,	"	2 12	2 25
EGGS,	dozen.	—	12
FISH, Shad, No. 1, Susquehanna, ..	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 50	3 62
Mackerel, No. 1, ———— No. 2	"	—	9 00
No. 3,	"	—	5 00
Cod, salted,	cwt.	3 00	3 25
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,	part	Farmers Bank of Virginia
Branch at Baltimore,	do	Bank of Virginia,
Other Branches,	do	Branch at Fredericksburg
MARYLAND.		Petersburg,
Banks in Baltimore,	par	Norfolk,
Hagerstown,	3a	Winchester,
Frederick,	do	Lynchburg,
Westminster,	do	Danville,
Farmers' Bank of Mary'd, do	do	Bank of the Valley,
Do. payable at Easton,	do	Branch at Romney, 1
Salisbury, 5 per ct. dis.		Do. Charlestown,
Cumberland,	1	Do. Leesburg,
Millington,	do	Wheeling Banks, 2a2½
DISTRICT.		Ohio Banks, generally 3a3½
Washington,	Banks, ½	New Jersey Banks gen. 1½a2
Georgetown,	do	New York City,
Alexandria,	do	New York State, 2½a3
PENNSYLVANIA.		Massachusetts, 2a2½
Philadelphia,	4a	Connecticut, 2a2½
Chambersburg,	4a	New Hampshire, 2a2½
Gettysburg,	do	Maine, 2a2½
Pittsburg,	2a2½	Rhode Island, 2a2½
York,	4a	North Carolina, 3a3½
Other Pennsylvania Bks. 1½a2		South Carolina, 3a3½
Delaware [under \$5] 3a4		Georgia, 3½a4
Do. [over 5] 2a2½		New Orleans, 6
Michigan Banks,	5a	
Canadian do,	5a	

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st., Baltimore

sep 27

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oc 4

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thin Rind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep..

4t.

FOR SALE,

Upwards of 200,000 silk-worm eggs. Address J. A. S. Patriot Office, Baltimore, Md. Sep. 27. 3t.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1-2 to 4 feet—the 2 feet and 1 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited. se 27. ROBERT SINCLAIR.

CHINESE MULBERRY TREES AND CUTTINGS.

THE best varieties of CHINESE MULBERRY, (Morus Multicaulis) from France, Italy and China, of one, two and three years' growth, may be had in large or small quantities, from S. WHITMARSH's extensive collection, and forwarded to any part of the United States, according to order, with directions for propagation. It is confidently believed, that the present mode of culture adopted by us, will prove a certain and secure protection against the severity of winter, and the best method by which to increase the foliage and multiply the number of trees.

All orders directed to the subscriber, will receive immediate and faithful attention.

In behalf of S. WHITMARSH,

DANIEL STEBBINS.

Northampton, Sept. 7.—20

3t.

POINTERS AND MASTIFFS.

FOUR Pointer pups about 4 months old, of good strain—warranted genuine.

ALSO—4 Mastiff pups, considered above all others the most faithful watch dogs.

The above pups can be procured by any persons wanting either of them, by application to the editor of the Farmer and Gardener, Baltimore.

All applications by letter, must be post paid.

3t

sep 20

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads. R. SINCLAIR, Jr.

aug 30

Light near Pratt-st. whf.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 25.

BALTIMORE, MD. OCTOBER 18, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, OCT 18, 1836.

IMPORTATION OF GRAIN.

The London correspondent of the New York Commercial Advertiser writes under date of the 10th September, that the state of the crops in many parts of America, and the necessity which will exist for considerable importations of grain into the United States, will, however, give a turn to commercial operations, which, with other circumstances, leaves little doubt but that specie will soon begin to flow back to England. Shipments of bonded grain have already been commenced across the Atlantic, to some extent; and it is estimated that but for the check imposed upon the facilities hitherto afforded in obtaining discounts, at least 50,000 quarters of grain would have been in the course of exportation to American ports.

The Americans, according to the latest commercial advices, were making preparations for entering into contracts for the importation of wheat, and other descriptions of corn, to make good the deficiency in the produce of this year's crops.—The circumstances just noticed, it is therefore confidently expected, will prevent any farther extensive drain of the precious metals, and will turn the balance of trade in favor of this country, and this too without the recurrence of any panic in the commercial world, which the alarmists in the city are so confident must be the result of the advance in the rate of interest by the directors of the bank of England.

INTERESTING TO SILK RAISERS.

The subscriber last spring planted a small field with the *Morus Multicaulis*, or new Chinese Mulberry, raised from cuttings of one bud each, say about three inches long, and observing that the trees had grown much larger than he expected, and had also thrown out many side branches, and that the growth was, in every particular, so much larger than was anticipated, he thought a plain statement of facts relative to them, and their culture, might prove encouraging to silk growers,

and acceptable to the subscribers of the Farmer and Gardener. He invited his friend E. P. Roberts to ride over to the nursery to see and assist in weighing some of said trees, which he did on the 1st inst. and in his presence three trees were taken up and weighed, the weight of which was 6 3-8 pounds, the average height above ground was 6 1/2 feet. On measuring a square rood, where those trees grew, the subscriber counted 84 trees, all 5 feet high and upwards. On separating the leaves from the above three trees, the produce was 2 1/2 lbs: now if we say 2 1/4 lbs for every three trees, as a portion of them were of a smaller size than those weighed, it will give to each square rood 63 lbs. or per acre 10,080 pounds of leaves the first season from cuttings—and a large portion of these leaves were produced in time for raising the second crop of worms. The land on which this crop of trees was raised, is a mellow loam on a clay bottom, from which in 1835 it was estimated that I cut two tons of Hay to the acre, and was manured last spring with about 22 horse cart loads of barn yard manure to the acre. Planted in rows 4 feet apart and 9 inches in the row.

ROBERT SINCLAIR.

Remarks by the Editor of the Farmer & Gardener.

We were delighted at the luxuriant growth of the *Morus Multicaulis* plants mentioned in the communication of friend Sinclair, as well as with their very great yield of foliage. It has satisfied us that much of the objection, which has heretofore rested in the minds of those who would reap ere they have sown, against the mulberry culture, may be obviated if the *Morus Multicaulis* be selected for the orchard. All the calculations in our Manual are based upon the supposition that the mulberry trees should be 4 years old before they are picked,—and in all candor we must confess that we are still of the opinion, that they ought to grow that long before they are deprived of their foliage; for we conceive that defoliation at an earlier period would tend to shorten the life of the plant. But those who are desirous of reaping all themselves, and leaving nothing for posterity, may, if they please, reap the fruits of their labor in the mulberry culture even from the first year upwards,—and now let us see what the product of an acre of ground planted in *Morus Multicaulis* trees one year old, equal in quality with those of friend Sinclair, would yield.

He fixes the quantity of leaves at 10,080 lbs. and as 1,000 lbs. will feed 20,000 silk worms during their working season, so will 10,080 lbs.

feed 201,600 worms, and as 3,000 worms will make a pound of silk, so will the aggregate number make 67 1-5 lbs. of silk, which at \$4 per pound will bring \$283 40—the expense of attending an acre in the silk culture, according to our computation, is \$154 20; this being taken from the gross amount leaves \$129 20 as the profit on an acre the first year;—and we fain would ask—what can be put in an acre that will yield so handsome a profit?

The estimated expense of attending an acre in the mulberry and silk culture, as assumed by us, we have always considered large, and think so still; but we purposely made it so, in order that we might, in its excess, cover all possible contingencies. From some little experience of the last year, we sincerely believe that the expense of gathering leaves and feeding the worms might be lessened at least 33 1-3 per cent. by judicious management, and we are certain that in proportion to the extent of an establishment would the expense be reduced.

HARVEST IN ENGLAND.

The harvest in England and on the continent was plentiful and well secured. Our commercial extracts mention the sale of 50,000 bushels of prime wheat in Liverpool, at a price which would make it cost just about \$1 a bushel on board, and landed here \$1.37 a 1.50.—*Balt. Amer.*

From the Liverpool Mercury of September 16th.

THE HARVEST.—The wheat and oat crops this year are very promising, and the present week, which may be considered as the most important week in the year for gathering in the southern parts of the north of England, has been, on the whole, favorable harvest weather, though Tuesday was a tremendous day of rain. South of Leeds and the Trent, almost all the corn crops are secured, while north of that line a large portion of the corn crops are ripe and some of them secured. The harvests in this country are of three months' duration, and may be divided thus: from the Land's End to a line drawn across the island from the Thames to the Severn, the height of harvest on an average of years is from the 1st to the 15th of August, from thence to a line drawn from the Wash to Barmouth, from the 15th to the 31st of August; from thence to a line drawn from the Humber mouth on the east to the Mersey on the west, from the 1st to the 15th of September; from thence to the line from the Tyne to the Eden, from the 15th to the 30th of September; and from thence to the north of Scotland, the month of October is generally employed in securing the crops. Speaking generally, we may say, that the

country has the promise of being blessed with another good harvest, being the fourth in succession, though a good deal, of course, depends upon the next six weeks. In the great corn countries the grain is already secured.

From the Richmond Compiler.

HIGH PRICES.

Every one is at a loss to account for the high prices of the ordinary articles of living, and we have often been asked to solve the question. Many reasons might be given, but as to the primary one, there may not be an agreement of opinion; though all, we think, will concur as to one or two.

We attribute the rapid rise in the price of provisions in part to the fact, that agriculture does not, in the general, receive its due proportion of public attention. The great demand for labor upon works of internal improvement, has necessarily abstracted a portion from field duties, and the increased productions of the soil do not keep pace with the increased consumption consequent upon the numerous public works now in progress in every part of the country. We might refer, too, to the immense drain from our slave population, to supply the Southern market; and we might with great propriety allude to the prevailing disposition to engage in speculations of all sorts—now so tempting to men of ardent temperaments.

But, worst of all, let any one look at the host of idlers to be found in every large city—the number who are consumers, without adding anything to the common stock—and the wonder will cease, that the price of every thing necessary to comfort or pleasure should be on the rise.

It does not become us authoritatively to suggest the remedy, but we believe we may safely venture the opinion, that the agriculture of this country must be improved; that parents must banish their holy horror of the sentence, that man should "earn his bread by the sweat of his brow," and must put their sons to useful employments, by which the productions of the earth can be increased—instead of indulging in the senseless pride of making them all professional men, without regard to their taste or capacity. The evil last alluded to, is becoming a serious one—and proofs of its existence are every where to be seen. No man can mistake them. It is well remarked, by a sensible writer on the interests of the working classes, that the essential condition, the accumulation of wealth, is, that it shall be produced in greater abundance than it be consumed; in other words, that labor shall be profitable, and earn more than its own maintenance.

That this is not now the case, is evident from the fact, that numerous articles of necessity and comfort, of which the earth would yield an abundant supply, fall far short of the demand; whilst acres of productive land, or that which might easily be made so, are lying unimproved, even in the precincts of this goodly city.

The subject is worthy of serious reflection.—Common sense demands the speedy application of a remedy—and we trust that the ancient and honorable pursuit of man will soon regain its place in the affections of the enterprising and the influential portion of society. We hope the period is at hand, when the love of distant adventure will almost entirely cease; and that the opinion

may become prevalent that nothing better need be desired than Virginia can produce. We long for the return of that feeling which once taught men to love the places of their birth—the homesteads of honorable and industrious ancestors—and that it may be esteemed a matter of laudable pride to be able to boast, in the language of the old song,

"The place I now hold on this honored estate,
Is the same which my grandfather tilled."

Cotton Crop of Mississippi.—The Vicksburg (Miss.) Register estimates the present cotton crop of that State, at one hundred millions of pounds, and in value at from fifteen to eighteen millions of dollars. The advance of this State in wealth and population, during the last five years, is almost unparalleled. According to the Grand Gulf Advertiser, the last has doubled, while the first has more than quadrupled, during this period. The population of that State is now said to number 328,000 persons.

On the Repotting and Management of Chinese Roses, by J. W. RUSSELL.

As this is the season for repotting Chinese and all tender roses, I herewith send you a few brief remarks on the method of performing this kind of work.

For Chinese and tender roses a quantity of good fresh earth should be procured; preference should be given to that taken from an upland pasture field; the sod, with about four or five inches of earth adhering to it, is the very best part of the soil. If this has been procured three months before wanted for use, and turned over once or twice, breaking the whole and mixing the turf well with the soil, so much the better; however, if the earth is to be obtained immediately when wanted, take a sharp spade, and pare off about an inch of the green sward, and take the under soil to the depth proposed, observing to break it pretty fine with the spade or trowel, but by no means to pass it through a *riddle*, for, by so doing, the most nutritive part of it is thrown away. When this is done, add about one half old *hoibed* manure, or, if this is not at hand, use any other kind of stable manure that is well decomposed, with a portion of sand, and mix the whole well together, this thoroughly done, the compost is ready for use.

Supposing the plant to be repotted is to be removed into a pot a size or two larger; in order to take the plant out of the pot with the ball entire, turn it *upside down*, and by giving the rim of it two or three gentle taps on the potting bench, the plant with the ball of earth and roots, will, generally, immediately leave it; then trim off all the matted, and mouldy fibres of the roots, which spread about the side and bottom of the ball, and, with a small, sharp pointed stick, scrape away very carefully a part of the old soil all round; this done, put in a few potsherds at the bottom of the new pot for drainage, and having first put a little of the coarsest of the compost on this, place the plant in, filling up all round the ball to within about a half an inch of the top, observing to cover over the surface of the old ball about an inch with the new compost. A thin piece of stick may be used with good effect, to work down the soil at the *sides* of the pot; then, by giving the bottom of the pot two or three thumps on the

potting bench, and a gentle watering afterwards, the operation is completely finished.

A similar compost is equally good for geraniums, only making use of half the quantity of manure specified for the roses. The repotting and trimming of the roots, &c. is the same. It is also as good a compost as any that I have ever yet tried for orange and lemon trees.

Yours, &c. &c.

J. W. RUSSELL.

Mount Auburn, Cambridge, Sep. 13, 1836.

RIPENING ONIONS.

In a cold season like this there are a great many onions that will not ripen, of course they will not keep long and become poor in a short time after they are harvested. Some break down the tops of their onions in order to cause them to ripen, but a far better way is to break the roots, otherwise pull them up from the middle to the last of September, and let them remain in sunshine and rain, and they will ripen very fast. Whether the moisture of the stocks goes into the onion and enlarges it, we cannot say, having never measured them, but they appear larger and are harder and better, and are shaped much better as the stock becomes dry. Two years since we had some onions that appeared to be not much more than half grown about the 20th of Sept.; the tops were very large and it was evident that if they remained in the ground the tops would continue green and the bottoms would be soft and of little value. We pulled them up and laid them on the ground in layers, only a few inches deep, so that they might all be exposed to the sun, in two rows with the roots together; we let them remain a few weeks; and then covered them with a wide board when there was a cold frosty night, and uncovered them in the morning, which was conveniently done, as they were placed in rows for that purpose, so that a wide board would cover two rows its whole length. When the weather became so cold that there was danger of their freezing, we carried them into a chamber that they might be dried by the heat of the sun on the roof, and there we let them remain some weeks. In this manner those onions that would have been worthless if they had remained in the ground became pretty good, and the tops became dry. This method, excepting that of carrying the onions into the chamber (which may be dispensed with) was attended with but very little more trouble than that of harvesting in the usual way.—*Yankee Farmer.*

WET CLAYEY SOILS

Are the most improved by the combined effect of two operations, viz. *draining* and *manuring*.

1. Draining should always be resorted to, when the soil appears at any time of the season to be too wet, except immediately after a heavy shower, as the water cannot then, from the nature of the soil, run off instantly. It is sometimes supposed that such soils may be made too dry by draining, but the reverse is the fact; for draining always tends to prevent the *baking* of those soils in drought, and by preserving them always in a loose and porous state, enables them to retain more moisture than would be the case were they suffered to become compact from too much moisture in spring.

2. The application of common stable and barn yard manure, besides enriching, not only keeps the soil loose, and allows the roots of plants to penetrate, but absorbs during a wet time the superabundant moisture, and prevents it from injuring the crops, and again throws it off for their benefit when the weather becomes dry.

The following is from the New York Cultivator and part of the system of *British Husbandry*, extracted from that journal.

OF THE DIFFERENT SPECIES OF MINERAL MANURES.

Alkaline Earths, or *Alkalies* and their combinations, which are found unmixed with the remains of any organized beings, are the only substances which can with propriety be called fossil manures. The only alkaline earths which have hitherto been applied in this way, are lime and magnesia; though potassa and soda, the two fixed alkalies, are both used to a limited extent in certain of their chemical compounds.

The most common form in which lime is found on the surface of the earth, is in a state of combination with carbonic acid or fixed air. If a piece of limestone or chalk be thrown into a fluid acid, there will be an effervescence. This is owing to the escape of the carbonic acid gas. The lime becomes dissolved in the liquor. When limestone is strongly heated, the carbonic acid gas is expelled, and then nothing remains but the pure alkaline earth; in this case there is a loss of weight; and if the fire has been very high, it approaches to one-half the weight of the stone; but in common cases, limestones, if well dried before burning, do not lose much more than 35 or 40 per cent. or from 7 to 8 parts out of 20.

When burnt lime is exposed to the atmosphere in a certain time it becomes mild, and is the same substance as that precipitated from lime water; it is combined with carbonic acid gas. Quick-lime, when first made, is caustic and burning to the tongue, renders vegetable blues, green, and is soluble, [*i. e.* dissolves] in water; but when combined with carbonic acid, it loses all these properties, its solubility and its taste; it regains its power of effervescing, and becomes the same chemical substance as chalk or limestone. Very few limestones or chalks consist entirely of lime and carbonic acid. The statuary marbles, or certain of the rhomboidal spars, are almost the only pure species; and the different properties of limestones, both as manures and cements, depend upon the nature of the ingredients mixed with the limestones; for the true calcareous elements, the carbonate of lime, is uniformly the same in nature, in properties, and effects, and consists of one proportion of carbonic acid, 41.4, and one of lime, 55. When a limestone does not copiously effervesce in acids, and is sufficiently hard to scratch glass, it contains silicious, (sandy,) and probably aluminous (clayey) earths. When it is deep brown or red, or strongly colored of any of the shades of brown or yellow, it contains oxide of iron. When it is not sufficiently hard to scratch glass, but effervesces slowly, and makes the acid in which it effervesces milky, it contains magnesia. And when it is black, and emits a fetid smell if rubbed, it contains coaly or bituminous matter. Before any opinion can be form-

ed of the manner in which the different ingredients in limestone modify their properties, it will be necessary to consider the operation of pure lime as a manure.

Quick-lime, in its pure state, whether in powder or dissolved in water, is injurious to plants. In several instances grass has been killed by watering it with lime-water. But lime, in its state of combination with carbonic acid, is a useful ingredient in soils. Calcareous earth is found in the ashes of the greater number of plants; and exposed to the air, lime cannot long continue caustic, for the reasons that were just now assigned, but soon become united to carbonic acid. When newly burnt lime is exposed to the air, it soon falls into powder; in this case it is called slaked lime; and the same effect is immediately produced by throwing water upon it, when it heats violently, and the water disappears. Slaked lime is merely a combination of lime, with about one-third its weight of water; *i. e.* fifty-five parts of lime absorb seventeen parts of water, and is called by chemists *hydrate of lime*—and when hydrate of lime becomes carbonate of lime by long exposure to air, the water is expelled, and the carbonic acid gas takes its place. When lime, whether freshly burnt or slaked, is mixed with any moist fibrous, vegetable matter, there is a strong action between the lime and the vegetable matter, and they form a kind of compost together, of which a part is usually soluble in water. By this sort of operation, lime renders matter which was before comparatively inert, nutritive; and as charcoal and oxygen abound in all vegetable matters, it becomes at the same time converted into carbonate of lime.

Mild lime, powdered lime-stone, marls or chalks, have an action of this kind upon vegetable matter; they prevent the too rapid decomposition of substances already dissolved, but they have no tendency to form soluble matters. It is obvious from these circumstances, that the operations of quick lime, and marl, or chalk, depend upon principles altogether different. Quick-lime in being applied to land, tends to bring any hard vegetable matter that it contains into a state of more rapid decomposition and solution, so as to render it a proper food for plants. Chalk, and marl, or carbonate of lime, will only improve the texture of the soil, or its relation to absorption; it acts merely as one of its earthy ingredients. Chalk has been recommended as a substance calculated to correct the sourness of land. It would surely have been a wise practice to have previously ascertained the certainty of this existence of acid, and to have determined its nature in order that it might be effectually removed. The fact really is, that no soil was ever yet found to contain any notable quantity of uncombined acid. The acetic and carbonate acids are the only two that are likely to be generated by spontaneous decomposition of animal or vegetable bodies, and neither of these have any fixity when exposed to the air. Chalk having no power of acting on animal or vegetable substances, can be no otherwise serviceable to land than as it alters its texture. Quick-lime, when it becomes mild, operates in the same manner as chalk, but in the act of becoming mild, it prepares soluble out of insoluble matter. Bouillon La Grange says, that

gelatine oxygenized becomes insoluble, and vegetable extract becomes so from the same cause; now lime has the property of attracting oxygen, and, consequently, of restoring the property of solubility to those substances which have been deprived of it, from a combination of oxygen. Hence, the use of lime on peat lands, and on all soils containing an excess of vegetable insoluble matter.—*Grisenthwaite*.

Effects of lime on wheat crops.—When lime is employed upon the land where there is present any quantity of ammonia, which may, perhaps, be imbibed by the leaves of plants, and afterwards undergo some change so as to form gluten. It is upon this circumstance, that the operation of lime in the preparation for wheat crops depends; and its efficacy in fertilizing peat, and in bringing into a state of cultivation all soils abounding in hard roots, or dry fibres, or inert vegetable matter.

General principles for applying lime.—The solution of the question whether quick-lime ought to be applied to a soil, depends upon the quantity of inert vegetable matter it contains.—The solution of the question, whether marl, mild lime, or powdered limestone ought to be applied, depends upon the quantity of calcareous matter already in the soil. All soils are improved by mild lime, and ultimately by quick-lime, which do not effervesce with acids, and sands more than clays. When a soil, deficient in calcareous matter, contains more soluble vegetable manure, the application of quick-lime should always be avoided, as it either tends to decompose the soluble matters by uniting to their carbon and oxygen so as to become mild lime, or it combines with the soluble matters, and forms compounds, having less attraction for water than the pure vegetable substance. The case is the same with respect to most animal manures, but the operation of the lime is different in cases; and depends upon the nature of the animal matter. Lime forms a kind of insoluble soap with oily matters, and then gradually decomposes them by separating from them oxygen and carbon. It combines likewise with animal acids, and probably assists their decomposition by abstracting carbonaceous matter from them combined with oxygen; and consequently must render them less nutritive. It tends to diminish, likewise, the nutritive powers of albumen from the same causes; and always destroys, to a certain extent, the efficacy of animal manures, either by combining with certain of their elements, or by giving to them new arrangements. Lime should never be applied with animal manures, unless they are too rich, or for the purpose of preventing noxious effluvia. It is injurious when mixed with any common dung, and tends to render the attractive matter insoluble. According to Chaptal, lime forms insoluble composts, with almost all animal or vegetable substances that are soft, and thus destroys their fermentative properties. Such compounds, however, exposed to the continued action of the air, alters in course of time, the lime becomes carbonate, the animal or vegetable matter decompose by degrees, and furnish new products as vegetable nourishment. In this view, lime presents two great advantages for the nutrition of plants; the first, that of disposing of certain insoluble bodies to form solu-

ble compounds, the second, that of prolonging the action and nutritive qualities of substances, beyond the term which they would return them if they were not made to enter into combination with lime. Thus the nutritive qualities of blood, as it exists in the compound of lime and blood, known as sugar bakers' scum, is moderated, prolonged, and given out by degrees: blood alone applied directly to the roots of plants will destroy them, with few or no exceptions.*

Lime promotes fermentation.—In those cases in which fermentation is useful to produce nutriment from vegetable substances, lime is efficacious. Some moist tanner's spent bark was mixed with one-fifth of its weight of quick-lime, and suffered to remain together in a close vessel for three months: the lime had been colored, and was effervescent, when water was poured upon the mixture, it gained a tint of fawn colored powder, which must have consisted of lime united to vegetable matter, for it burnt when strongly heated, and left a residuum of mild lime.

**Note by the Editor of the Farmer & Gard.*

A more valuable manure than blood cannot be applied to the grape-vine.

HORTICULTURAL SOCIETY OF MARYLAND.

In presenting their report of the exhibition which took place in this city on the 28th ult. the Horticultural Society of Maryland must be permitted to congratulate the community on the evident improvement which has taken place, within the last few years, in the departments of the very interesting science, to promote the cause of which their energies have been exerted, and to express their decided approbation of the zealous efforts of those who have co-operated with them in advancing the prosperity of a branch of knowledge so well calculated to refine the moral and intellectual taste, whilst it improves and multiplies the means of gratifying the palate.—Notwithstanding the peculiar character of the past season, which, owing to its coldness and moisture has been unpropitious to a great proportion of vegetable growths, the late display has been unprecedented, as well in regard to the number, as to the variety and excellence of the specimens furnished. An increasing interest has been manifested by the public in behalf of horticulture, from which the best results may be anticipated—and although it must be admitted that in some instances the untiring zeal of the society has not met with a corresponding feeling on the part of those whose interests are most deeply involved, there is every reason to hope that a little more time is alone required to bring all who are connected with horticulture, either in gratifying their tastes or making it a source of profit, into harmonious communion in promoting its improvement. The society avail themselves of the earliest opportunity to express their high sense of obligation to the chairman and members of the committee of arrangements, for the manner in which the exhibition was managed, so creditable to themselves and reflecting so much honor upon the association in whose behalf they acted. In the department of Vegetables the attention of the society has been particularly directed to the following

articles, contributed by the individuals whose names are affixed to them respectively.

A beautiful striped gourd, artichokes, tomatoes, Lima beans, cape brocoli, and rhubarb—by Mr. Valentine.

Some remarkably fine drum-head cabbages, Mercer potatoes, salsify, yellow radish, Lima beans, and some fine long carrots—by Peter Coombs.

Very fine Savoy cabbages, drum-head ditto, radishes, tomatoes, egg-plants, Mercer potatoes, and two crook-necked squashes, one the production of last year, apparently as sound as ever, going to prove that this vegetable can be preserved for a long time if kept dry—by Peter Nantz.

Red turnip beets, fine seedling onions, tomatoes, salsify, cellery, and the finest Lima beans that have been produced this year—by Thomas Dixon.

Three kinds of corn, very fine; egg-plants, squashes, sugar beets, red beets, bell pepper, cape brocoli, and 2 winter squashes, one weighing 47 lbs.—by Dr. Perkins.

Mercer potatoes, egg-plants, ockra, tomatoes, Lima beans, and beets—by James Stronech.

Crook-necked squashes and pickling tomatoes, fine—by Thos. Dorsey.

Some fine endives, egg-plants, squashes, and pumpkins—by Mr. Yates.

Four very fine egg-plants, two pumpkins, mangel wurtzel, and some fine corn—by David Barnum.

Cape brocoli, bell peppers, turnip beets, and salsify—by Mr. Macauley, gardener for Mr. Wilson.

Kidney potatoes, squashes, and tomatoes—by Benj. Wilson.

Fine Mercer potatoes and corn—by James H. McCulloh.

Some white egg-plants—by Mrs. B. I. Cohen.

White egg-plants—by Mrs. R. A. Taylor.

Four fine bunches celery, Savoy cabbage, parsnips and endives—by Mr. Berenger.

Parsnips, ockra, and fine white and fine cucumbers—by Charles Shoeckle.

Two beautifully shaped gourds—by Edward K. Schaeffer.

A small, but beautiful variety of gourds, entirely new—by Mr. Wright.

The contributions to the Fruit Department were a fine collection of fruit of superior quality, particularly the grapes and pears.

Golden beure and seckle pears, black prince, Syrian, Constantia, white sweet water, yellow Chassellas Grapes; magnum bonum plums, peaches, figs and quinces—by Henry W. Moore.

Some very fine apples, lemons and oranges; also, a variety of the Siberian crab, very beautiful—by Joseph Pierce, of Washington.

A fine collection of apples; three varieties of quince, and Catawba and Isabella grapes—by Robt. Sinclair, Sen.

A fine collection of lemons—by T. Edmondson.

Some fine wine sap apples—by Mrs. Wm. Buckler.

A basket of fine Tamprina grapes—by Mrs. F. Hyam.

Some Herbemont Madeira grapes—by F. H. Smith.

Herbemont Madeira grapes, extra fine—by Mrs. B. W. Hudson.

Flanders pippin apples, very large—by F. Harrison, Jr.

Pommes d'Appni, bamboo apple, and some English filberts—by Mrs. Emory.

Some very fine peaches—by Miss Martha Mackall, of Georgetown.

Some fine apples, with the fruit of the Maclura, or Osage orange, very large and beautiful—by Mrs. Fredk. Konig.

English filberts, figs, six varieties of pears, four varieties of native grapes, very fine; also, raspberries, and four fine cantelopes—by Richard Valentine.

Some very fine seckle pears—by Oliver Cromwell.

A beautiful and delicious variety of pears—by Miss Ann Rogers.

Some fine peaches—by Mrs. Wm. Alcock.

Fine pears, apples and lemons—by Mrs. Bohn.

Apples, pears, and Isabella grapes—by Mr. Macauley.

A very fine collection of apples, consisting of eighteen varieties—by James Howard.

Some fine pears—by Peter Coombs.

A fine collection of lemons and limes—by James Carroll, Jr.

Two monstrous pippin apples, one weighing 21 ounces—by Thos. Oliver.

Four varieties of pears, and black Colville apples—by Henry Schwartze.

A collection of apples—by Thos. Dixon.

ORNAMENTAL DEPARTMENT.

A fine collection of stove and green house plants, from St. Mary's College, consisting of ficus scabra, 7 feet high, in full fruit; ficus bengalensis; ficus nitida, large specimens; kanksia formosa, 8 feet high; cestrum nocturnum; eugenias of sorts; alaternus variegata; hibiscus sinensis, 3 varieties in full flower; several fine specimens of cactus, besides many other rare and valuable plants in flower, together with a collection of dahlias and other cut flowers.

A collection of green house plants, consisting of the myrtle leaved orange, 10 feet high, full of fruit and in fine order; the Portugal lemon, very fine and full of fruit; ficus elastica, or India rubber tree; Eugenia Jambo, or rose apple, a very beautiful specimen; Eugenia uniflora, and some fine dahlias, cut flowers, &c.—by Mr. Edmondson.

A collection of cut flowers, consisting of some fine Chinese roses, verbina melindra, &c.—by Mrs. G. W. Riggs.

Many fine specimens of green house plants, as amaryllis rutila, Brunsewigia Josephine, Thunbergia alata, &c.—by Mrs. Emory.

A myrtle leaved orange, covered with ripe fruit; cyclamen Europæum, in fine flower, with some fine dahlias, and cut flowers—by Mrs. R. A. Taylor.

A collection of the choicest varieties of dahlias, viz: village maid, negro boy, Aggripina, Beauty of Wickham, Nymphæ flora; Rose d'amour, King of yellows, Lord John Russell, &c.—by Mrs. G. H. Keerle.

Yucca aloefolia, 15 feet high, Sago palm, with many other beautiful plants, by Miss E. Schroeder.

Ten varieties of zinnia, very beautiful—by Miss Kurtz.

A fine specimen of dwarf pomegranate, full blown, with cut flowers, by Mrs. Dr. Alexander.

A collection of cut flowers—by Mrs. Forney.

A fine wax plant, or *Foya carnosus*—by Mrs. Todhunter.

A very large plant of Pomegranate, in full flower and fruit, and many other fine plants, and a collection of dahlias and cut flowers—by Mrs. Joseph King.

A collection of fine dahlias and cut flowers—by Mr. Wm. Wilson.

A collection of dahlias, containing some fine seedlings—by Mr. Harrison.

Several fine plants, particularly a cactus-*fecus indicus*, by James Carroll.

Many fine plants, by Mrs. B. I. Cohen.

A fine specimen of *liatris*, a tribe of plants worthy of cultivation by every amateur—by Gideon B. Smith.

A choice collection of green house plants, such as *achania mollis*, a fine plant of a species of *Pothos*, and many other plants and cut flowers, &c.—by Zebulon Waters.

Myrtus tormentosa, *crowea saligna*, black and green tea, *metrosideros*, *semperflora ardesia crenata*, *bourvardia triphylla*, a fine collection of dahlias and cut flowers, by Edwd. Kurtz.

A large collection of dahlias, very fine, with many fine seedlings—by Joshua Pierce, of Washington.

Many fine dahlias, by Robt. Sinclair, Sen.

A number of fine plants, consisting of *epacris grandiflora*, *musa rosea*, *cotilidon cespitosa*, *cyclamen Europeum*, *hedycheum augustifolium*, *alpinia nutans*, *ilex Europeus*, several varieties, *datura arborea*, *sterculia platanifolia*, a choice collection of Dahlias and cut flowers—by John Feast.

A choice collection of plants, such as coffee, tea, cinnamon, camphor, two species of banana, India rubber, *glosinia speciosa*, *plumeria rubra*, two varieties of air-plant, sago palm, and many others, with a variety of dahlias and cut flowers, by Mr. Samuel Feast.

The collection of Dahlias presented by Mr. Joseph Pierce, of Washington, attracted universal admiration, and the society found much difficulty in deciding as to the respective merits of this and the contributions of Mr. Robert Sinclair, Sen., and Mr. John Feast. Premiums have been awarded to each of them according to their peculiar merits in the following manner:

To Mr. Pierce was awarded the premium for seedlings.

To Mr. Sinclair, the premium for bloom.

And to Mr. John Feast, the premium for the collection.

The premiums awarded for productions up to June, were presented on the last evening of the exhibition, to the persons entitled to them.

In the manifestations, universally exhibited, of pleasure on the part of visitors, the society are gratified to believe, that they behold an earnest of a future feeling in behalf of the cherished object of their exertions, from which the best consequences may be anticipated.

On behalf of the Horticultural Society.

J. H. NAFF, Sect'y.

Quarrels would never last long, if the fault were on one side only.

WHEN IS THE BEST TIME TO PLOUGH?

The above question is one of no small importance to the farmer. Most of our land is ploughed in the spring—a part is ploughed in the summer, and a part is ploughed in the fall. Although we admit that farmers should embrace the opportunity to plough when their leisure or time will allow, yet every one will say, that in breaking up sward land it makes some difference when it should be done; whether in the summer or autumn or spring. The reasons for this difference depend upon the action of the decaying sod on the crops. Some assert that the sod if ploughed in the summer, is decomposed by the time that the summer crop is commencing, and the crop has the benefit of it, whereas if ploughed late in the fall, or in the spring, the sod does not become wholly decomposed, and the crop cannot receive the whole benefit of it. In conversation with an observing and very intelligent farmer, the other day,—he observes that his crops which were put upon a summer fallow, invariably looked well in the first part of the season, but at the latter part, when maturing the seed, they fall short of those which were put upon a spring fallow. Now there may be something in this, and perhaps the following may be the reason of it. It has been found that for a green succulent growth, or for the production of leaves, straw, &c., manure that is undergoing fermentation is best, while for the production of seed or fruit, manure that has been fermented, is the best—Now may not the summer ploughed become fermented, or decomposed, and its energy finished, or done too early—while the latter is delayed till the seed is matured? We merely make these suggestions with the hope of eliciting information from those who know more about the business.

[From the Maine Farmer.]

POTATOES.

MR. HOLMES:—Something has been said in the Farmer, respecting the growth, or enlargement of the tubers of Potatoes, after the tops are killed down to the ground by *Frost*, the latter part of the season.

As such an event has taken place in very many towns and localities in Maine, the present season, it is earnestly hoped that all Farmers who have a late variety, or who planted late, would not dig them, or any more of them, than enough to learn their present size, until as late in the season as usual, and when they complete their digging, that they would communicate, through the Farmer, the comparative results.

A very respectable Farmer recently informed me that he once dug some potatoes, soon after an early frost had killed the tops, and delayed digging the residue of the piece until late. As soon as he began the late digging, he discovered a visible increase. If this is so, is it not important that all farmers should know the fact? No farmer can be so disobliging as to withhold such, if it is a fact—and if it is not, farmers are equally interested to know it. The writer of this believes that the fact does exist—if it does not, he would like to be undeceived.

As this vegetable, the present season, owing to the dry weather, must, and will yield a small

crop, how important that we should not diminish it by early digging, after being blessed with more rain.

ENQUIRER.

Winthrop, September, 12 1836.

PRESERVING POTATOES.

Injurious Effects of their Tops.

Every body (except Cobbett, and he's dead,) loves potatoes, that is, if in the first place they are ripe, in the second place, well preserved, and in the third place they are well cooked. Without stopping to doubt the abilities of the good wives of our land in this department of household economy, we will proceed to read their husbands a homily upon the "ways and means" of preserving potatoes as they ought to be. We will suppose that they are ripe, that is, have obtained a fair size, and are mealy and farinaceous when properly cooked. When digging, don't let each boy, or hand, have a pile of his own, where he empties his basket, spreading them out as much as possible upon the ground, in order that each potato may feel the full and direct influence of the sun and air. And furthermore, don't let them dig more than can be got in at night, and therefore allowed to be out 12 or 24 hours with nothing over them but a few straggling tops, as a sort of an apology for a covering. But, if we may be allowed to advise in the premises—and we have followed plans, and by some spoiled as good potatoes as ever were grown, by our ignorance or carelessness, or both—we would recommend a cart covered on the top tightly with boards, or by an old coverlid, so that the potatoes when put in shall not be exposed at all to the light, and as little as possible to the air, and carried into the cellar or bins as soon after they are taken from the hills as they can conveniently. The bins should also be so constructed that potatoes can be excluded from air and light, in short so as to keep them in a similar state to that which they are in previously to their being dug—that is, secure from the light and air—with a little moisture, and a temperature sufficiently low to keep them from vegetating.

The plan laid down by Mr. Barnum, and published in our paper last summer, we think is a good one, viz. to make a bin, put some sand or turf at the bottom, cut some sods and line up the ends with them, and when the potatoes are put in, cover them over with sods; and beat them down solid—this keeps them moist and cool, and we doubt not is an excellent plan.

The light has a peculiar action on some potatoes, making them heavy and watery or waxy, and strong or rancid to the taste. It is perhaps not always possible to prevent this, when they have suffered from some disease of their tops, or have been disturbed while growing, or have not a suitable soil. As it regards the tops, it is generally the custom to throw them down and take no further trouble about them.

A correspondent in a late number of the Farmer recommends preserving them when they are green, for fodder—and another correspondent cautions us against leaving them on the ground, because they form a harbor and breeding place for insects which will injure the next crop, especially if it be wheat. We know not whether this invariably follows, but we have seen during the past summer, several crops of wheat that succeed-

ed a potatoe crop, all of which were injured by some worm or insect. One in particular, we recollect in the neighborhood of our office, a part of which was much injured and very thin, while another end of the same field, and on soil of the same texture, but which had not been preceded by potatoes, was very stout and prolific. It is better therefore undoubtedly, either to gather them up and burn them, or throw them into the hog-yard for their shoatships to manufacture into manure.—*Me. Farmer.*

A LEAF FROM THE NOTE BOOK OF A FARMER.

Some experience, and more observation, has convinced me that one of the most common errors into which farmers fall, is undertaking more than they can perform; hence I insert the following—

Mem. Never to lay out more work than there is a reasonable probability of my finishing in good time, and in good order. Labor is capital, and time is capital, and a man should know how much of both he can bestow any given part of his farm before he undertakes its cultivation. Serious losses result from a neglect of this rule, for there are many farms, and many operations in farming, in which a failure in time or labor is fatal to the hope of profit. There are many farms so situated that the crops will not pay the expense of cultivation, unless manure is used to a considerable extent: now if the farmer plans his business on so extensive a scale that he has no time to collect and apply this essential article, his inferior crops will prove a source of loss instead of gain. If he plants a field of corn, but has so much other work to do that he can hoe it but once, and that slightly, when two thorough ones are required, he must not complain if his neighbor, who employs a capital of both time and labor on his corn, should gather a harvest far exceeding his own. If he allows his manure to lie in the barn yard through the summer, washing in the rains, and wasting in the sun, because he had not time to apply it to his corn or barley grounds in the spring, he may be sure that he is not in the way to get the most profit from his farm, or the most benefit from his barn yard. The man who has no time to clean his seed wheat, because he is so driven with work, will most likely find some five or ten per cent. of his crop will be chaff and cockle at harvesting. But there is no end to the inconveniences that result from attempting too much on the farm; from beginning to end it is evil; it makes the whole process of farming uphill work; it allows not a moment for relaxation or improvement of the mind; it places the farmer and his work in wrong positions, the latter always driving the former; and he who does not correct the error in time, will find himself driven out of house and home.

Mem. Never to willingly subject myself to a charge of ignorance on any subject of permanent utility or general knowledge, not of a kind strictly technical or professional. The notion so prevalent, that the farmer, from the very nature of his avocations, must necessarily be ignorant of every thing that does not relate to his employment, should be exploded, and none are more interested in the matter than the farmer himself.

It may be asserted, that few professional men, who are zealously and successfully engaged in their several pursuits, have more hours to devote to the acquisition of general knowledge of a useful kind, than the farmer. All that is wanting is the taste for knowledge—and this taste is usually an acquired one—and the means of information will follow as a matter of course. Papers, periodicals, books, all are so plentiful and so cheap, and information on most topics has been so condensed, that to plead want of means, or want of time, for the acquisition of knowledge, is sealing our condemnation with our own hand. True, a farmer must go work, and work hard—to labor is his glory, and in it he finds his reward. The free laborer who tills his own farm, has a prouder patent of nobility, and can trace a longer pedigree, than any monarch-made race of peers on earth, but he must never be ashamed of his calling, or ape the follies or vices of those who ridiculously deem themselves above him.

Mem. Always to perform whatever I undertake. The celebrated John Hunter, towards the close of his life, was asked how he had been able to accomplish so much labor. He replied, "by always performing what I undertook. If an object presented itself to me as desirable to be accomplished, I first inquired whether it could be done—if it was necessary it should be done—and these two points once settled, the conclusion was, I could do it as well as any one else, and by perseverance it was done." This is the true course to be pursued by the farmer. Only let him determine what is indispensable, and necessary to success in any farming operation, and he will rarely fail. The object and the means of attaining it should be distinct in the mind, and these should be unhesitatingly pursued. Perseverance has wrought wonders in the farming world, and its efficiency is not by any means lost. The most highly cultivated parts of Europe, were once considered as hopelessly barren; and our country exhibits some most honorable examples of what skill and determined industry can accomplish.

Mem. Always to pay particular attention to the garden. Some farmers by their continued borrowing, seem to believe in the maxim, that "good neighbors are half one's living," but this I would have applied to my garden. If properly selected, well manured, and carefully planted and tended, a garden plat of half an acre will half support a moderate family. The garden forms a place into which a thousand scraps of time can be profitably cast, and health and pleasure be, as they unhappily not often are, combined. Flowers may be called the poetry of the farm, and they are so closely allied, that he who loves not both of them, may be said to have but half a heart, and the woman who neglects them is—is unpardonable.

Mem. Never to suffer the season of gathering and securing seeds to pass, without laying in sufficient quantity for my own use, of the very best of all the necessary kinds that can be procured. It costs but little trouble at the time; it enables you to be certain of the kind and quality; and when the season of planting or sowing arrives, saves you an infinite deal of vexation and trouble in looking them up. The governing maxim of him who would be a thrifty farmer, so far as con-

cerns what can profitably be raised on his own farm, must be—*always to sell, never to buy.*

Observer.

TO FATTEN HOGS.

An English farmer fattened eight pigs in the following manner, which may be recommended in cases where a constant and regular attention cannot be given to feeding the animals. He placed two troughs in the sty; one he filled with raw potatoes, the other with peas and gave no water. When the pigs were thirsty they ate the potatoes. In this way it is probable that the animals would not only thrive without water, but would need no antimony, brimstone, nor any other medical substances: for new potatoes being cooling and loosening might serve at once for food and physic. Instead of peas, perhaps dry indian corn, or wheat would be better, indian meal might be substituted. This mode of management with swine was first recommended in the *N. E. Farmer*, Aug 6, 1826, and has been adopted by a correspondent of the *Northern Farmer*, who directs as follows—

'Shut your hogs up the first part of September; feed them with dry peas, or corn; give them raw potatoes, but no drink. The grain creates an inward fever; the animals being uneasy from thirst, will chew potatoes fine, but chew slow, and get the substance of them as if boiled. This has been my practice for years past. I give them as much grain as they will eat; and after that each grown hog will eat from 6 to 8 quarts of potatoes per day.'

ASHES AS A MANURE FOR GRASS LANDS.

There is scarcely any part of the country where leached ashes cannot be obtained in greater or less quantity; and in the vicinity of ash-eries, abundance may be had generally with no other expense than drawing. If the following remarks by Count Chaptal are applicable to soils of whatever materials they may be composed, a knowledge of this property of leached ashes, would in many instances be of very great value. At all events the experiment is easily performed on a moderate scale.

"The ashes, produced by the combustion of wood in our common domestic fires, give rise to some very remarkable results. Without being leached, these ashes are much too active; but after having been deprived by the action of water, of nearly all their salts, and employed in this state under the name of buck-ashes, they still produce great effect.

"The action of the buck-ashes is most powerful upon moist land and meadows, in which they not only facilitate the growth of useful plants, but if employed constantly for several years, they will free the soil from weeds. By the use of them, land constantly drenched with water may be freed from rushes, and prepared for yielding clover and other plants of good kind."

It has been frequently supposed that ashes applied to wet heavy soils is injurious. This is probably owing to the application being too uneven, and in too large quantities, and to the want of mixing them intimately with the soil. Chaptal says, "Wood ashes possess the double property of amending a wet and clayey soil by divi-

ding and drying it, and of promoting vegetation, by the salts they contain."

It is well known, that the evenly spread and intimately intermixed layer of ashes which soils receive by burning the turf, produces extraordinary effects upon grass lands.—*Genesee Farmer.*

From the *Genesee Farmer.*
THE POTATOE.

A short extract from the article Potatoe may also be deserving of attention. I have for a long time been convinced in my own mind of the propriety of farmers taking some pains to ascertain what particular kind of potatoes were best adapted to their particular location, and as there is no way to come more directly at it than by raising potatoes from the seed, by which we shall be able to select such varieties as best suits us, either for the table or for their large yield. With this view I deem it expedient to add the following extract, touching the method of cultivation.

"Take a bunch of the apples of any sort of potatoes—hang it up in a warm room during winter, and in February separate the seeds from pulp, by washing the apples in water, and pressing them with the fingers. Then dry the seeds upon paper. In the month of April, sow these seeds in drills, in a bed of earth well dug and manured with rotten dung. When the plants are about an inch high, draw a little earth up to them with a hoe, in order to lengthen their main roots. When they are about three inches high, dig them up with a spade, and separate them carefully from each other, in order for planting out in the following manner: Prepare a piece of fresh ground by trenching it well—dig up the seedling plants as before directed, and plant them out in the ground, thus prepared, in such manner that there shall be 16 inches between each plant. As they advance in growth, let them receive one or two earthings up, in order to lengthen the main root, and encourage the shoots under ground. By this management the potatoes will, in the course of one season, arrive at the size of hen's eggs, and the haulm will be as vigorous as if sets had been planted. But what proves their luxuriance in the most convincing manner, is, that flowers and apples are produced."

Another writer on the same subject says: "As the culture of potatoes, and particularly of the early sorts for the table, has of late become an object of very general attention, I hope the following account of a new method of obtaining these (without the help of hot beds) will be acceptable to the public.

"On the 2d of January, 1772, I made a hot bed for the forward sort of potatoes, and on the 7th put in the sets, placing a glass and frame over them, and taking every precaution to defend them from the frost. Of these small potatoes or sets there remained about 40 in a basket, which was accidentally hung up in a warm kitchen, and there remained unnoticed till about the 25th of April. I then accidentally observed the basket, and perceiving something green on the edge of it, took it down, and to my great surprise, found that the potatoes had sprouted half a yard in length, and that there was a great number of very small potatoes formed on the fibrous roots

which had grown out. I took them into my garden and planted them in a rich sandy soil without any manure. The roots I put into the ground three inches deep, and laid down the stems that had sprouted horizontally, and covered them with two inches of soil, but left the tops uncovered. Without further attention they grew surprisingly.

On the 26th of May I took up the roots planted in the hot-bed on the 7th of January. They by no means answered my expectations, or paid for the trouble of their culture; but at the same time I was astonished to find the others which were put into the ground so late to have produced larger potatoes than the roots in the hot-bed. I took up all the roots and picked off the large potatoes from them, which amounted to from 4 to 12 on each root, and then set the roots again in the same ground. This indeed I have successfully practised for many years, sometimes even twice, and had a third good at Michaelmas. When this method is tried, the roots must be watered on the evening of hot days."

Respectfully, yours,

ABRAHAM REYNOLDS.

Ledyard, Jan. 25, 1836.

Cure for the Bloody Murrain.—Mr. Joseph Priestmen communicates to the *Genesee Farmer*, the following cure for this fatal disease:

Take a piece of *poke-root* as big as a man's fist, say half a pound in weight—cut it fine, add two quarts of water, boil it down to one quart. This quantity must be given once a day for two or three days to a cow, or bull, when the cure will have been effected.

How to make a double crop on poor soil.—Plough up your ground intended for corn in the fall of the year, as you can plough it—let it lay till spring—at the opening of which, when the frost is entirely out of the ground, give it a good ploughing and harrow it down. It is then in good order for preparing to plant. Take of slaked ashes, two thirds, and of ground plaster one third; mix them well together and follow the droppers, and put as much of this mixture on the seeds as you can grasp in your hand, and cover it well over in the usual way. The corn will grow off finely, and retain a strong vigorous growth and green color, and stand the drought much better than upon the strongest culture. The writer of this having tried the experiment for two years has fully tested its value.

CONTENTS OF THIS NUMBER.

Importation of grain—interesting to silk growers, by R. Sinclair, with remarks by the Editor—harvest in England—high prices—cotton crop of Mississippi—on the rotting and management of roses—ripening onions—to improve wet clayey soils—different species of mineral manures—report of the Maryland Horticultural Society—when is the best time to plough—on the enlargement of the tubers of potatoes—on preserving potatoes—a leaf from the note book of a farmer—to fatten hogs—ashes as a manure for grass lands—the potato—cure for bloody murrain—how to make a double crop on poor soil—advertisements, prices current, &c.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

DEVON STOCK.

THE editor of the *Farmer and Gardener* can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the *Farmer and Gardener*. an 23

FANCY PIGEONS.

THE editor of the *Farmer and Gardener*, Baltimore, Md. has the following kinds of Fancy Pigeons for sale, which he will dispose of at the prices annexed to each.

Turbots, \$2.50 per pair—*Carriers*, \$3 per pair—*Fan Tails*, \$2.50 per pair—*Trumpeters*, \$2.50—*Nuns*, black with white heads, and white with black heads, \$2 per pair—*Croppers*, \$3.50 per pair.

Also 1 dozen pair GERMAN CHICKENS, of all colors, with large top knots. These chickens are not only favorites on account of their beauty, but because of their laying propensities.—Price, \$3 per pair. oct 18

A JACK FOR SALE.

THE editor of the *Farmer and Gardener*, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire.

Price, \$500.

All letters upon the subject must be post paid. oct 18

TWO POINTER PUPS.

FOR SALE, 2 handsome pointer pups, the one 4 the other 2 months old, and both warranted to be of pure strain. The price of the first named is \$10, that of the latter, \$5. oct 18

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil. R. SINCLAIR, Jr. aug 30

Light near Pratt-st. whf.

NEW CHINESE MULBERRY,

Or *Morus Multicaulis* Trees and Cuttings, for sale.

THE SUBSCRIBER has a large stock of these trees, very thrifty well rooted plants, 2 to 5 feet high, raised in this country, under his superintendence, which would be sold according to size, on pleasing terms, and carefully packed and forwarded to order to any section of our country.

And from six years experiments in cultivating this tree, he is decidedly of opinion, that there is no tree so well calculated to raise silk. Any information relative to its culture, will be furnished to purchasers if requested.—Also the Italian white mulberry 2 to 3 feet, very cheap.

ROBERT SINCLAIR,

Clairmont Nursery, near Baltimore. se 20

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf

BALTIMORE PRODUCE MARKET.

BALTIMORE PROVISION MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	7 00	8 00
CORN, yellow,	bushel.	98	102
White,	"	94	96
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	—
Do. do. baker's,	"	—	—
Do. do. Superfine,	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	—
" " " " " " " " " " " "	"	9 50	—
City Mills, extra,	"	—	9 50
Do. " " " " " " " " " " " "	"	9 00	9 25
Susquehanna,	"	—	9 25
Rye,	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. " " " " " " " " " " " "	bbl.	—	4 75
GRASS SEEDS, red Clover,	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	2 50	3 00
Tall meadow Oat,	"	2 25	2 75
Herds, or red top,	"	1 00	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" " " " " " " " " " " "	"	7	8
Hogs, on the hoof,	100lb.	8 50	8 75
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	50	53
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 00	5 00
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	102	110
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"	—	—
" for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	—
Red, best,	"	1 75	1 85
inferior,	"	1 40	1 60
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,	"	2 00	—
Wool, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 32
Full Merino,	"	48	55 28 30
Three fourths Merino,	"	45	48 26 28
One half do.	"	40	45 26 28
Common & one fourth Meri.	"	36	40 26 28
Pulled,	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders, do.	"	14	—
Middlings, do.	"	—	14
Assorted, country,	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,	"	20	28
CIDER,	barrel.	—	—
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,	"	25 00	45 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	2 12	2 25
CHOP RYE,	"	2 12	2 25
EGGS,	dozen.	20	25
Fish, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,	"	9 50	—
Herrings, salted, No. 1,	"	3 12	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,	"	—	5 00
Cod, salted,	cwt.	—	—
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	paid	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virginia 2a2
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore, par		Petersburg,
Hagerstown,	1a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton, do		Bank of the Valley, do
Salisbury, 5 per ct. dis.		Branch at Romney, 1
Cumberland,	1	Do. Charlestown, do
Millington,	do	Do. Leesburg, do
DISTRICT.		Wheeling Banks, 2a2 1/2
Washington, } Banks, 1.		Ohio Banks, generally 3a3 1/2
Georgetown, } Banks, 1.		New Jersey Banks gen. 1a2
Alexandria, }		New York City, 1a
PENNSYLVANIA.		New York State, 2 1/2 a3
Philadelphia,	1a	Massachusetts, 2a2 1/2
Chambersburg,	1a	Connecticut, 2a2 1/2
Gettysburg,	do	New Hampshire, 2a2 1/2
Pittsburg,	2a2 1/2	Maine, 2a2 1/2
York,	1a	Rhode Island, 2a2 1/2
Other Pennsylvania Bks. 1a2		North Carolina, 3a3 1/2
Delaware [under \$5] 3a4		South Carolina, 3a3 1/2
Do. [over 5] 2a2 1/2		Georgia, 3 1/2 a4
Michigan Banks,	5a	New Orleans, 6
Canadian do. 5a		

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltin ora

sep 27

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oct

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thin Rind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep..

4t.

FOR SALE,

Upwards of 200,000 silk-worm eggs.

Address J. A. S. Patriot Office, Baltimore, Md.

Sep. 27.

3t.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1-2 to 4 feet—the 2 feet and 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited. se 27

ROBERT SINCLAIR.

CHINESE MULBERRY TREES AND CUTTINGS.

THE best varieties of CHINESE MULBERRY, (Morus Multicaulis) from France, Italy and China, of one, two and three years' growth, may be had in large or small quantities, from S. WHITMARSH's extensive collection, and forwarded to any part of the United States, according to order, with directions for propagation.

It is confidently believed, that the present mode of culture adopted by us, will prove a certain and secure protection against the severity of winter, and the best method by which to increase the foliage and multiply the number of trees.

All orders directed to the subscriber, will receive immediate and faithful attention.

In behalf of S. WHITMARSH,

DANIEL STEBBINS.

Northampton, Sept. 7.—20

3t.

POINTERS AND MASTIFFS.

TEN Pointer pups about 4 months old, of good strain—warranted genuine.

ALSO—4 Mastiff pups, considered above all others the most faithful watch dogs.

The above pups can be procured by any persons wanting either of them, by application to the editor of the Farmer and Gardener, Baltimore.

All applications by letter, must be post paid.

3t

sep 20

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st. whf.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

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BALTIMORE, MD. OCTOBER 25, 1836.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, on the *west side of Light, near Prattstreet*, at FIVE DOLLARS *per annum*, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, OCT 25, 1836.

We would again respectfully request our subscribers to remit us by *mail* the amounts they may respectively be indebted to us. In so doing they will place us under additional obligations to exert ourself to promote their interests by laying before them every information within our power calculated to throw light on the theory and practice of agriculture.

The National Gazette, of the 18th instant, has an ably written editorial article on the subject of British and American finance, in which we find the following bold though just assertion:

"Thirty years will make the *Silk* of the United States a prodigious article of production. A staple second only to cotton."

Of the truth of the above prediction there can be no doubt in the mind of any one who may have been an observer of passing events for the last eighteen months. Since that period a spirit of inquiry has been abroad throughout our wide spread confederacy, with respect to the *Silk culture*, and the capacity of the country for its production, which has, and will continue to make it a favorite branch of husbandry. The facility with which mulberry orchards can be produced, the happy adaptation of our soil to the growth of the tree, the suitableness of our climate to the raising of the silk-worm, the interesting and pleasing nature of the labor of feeding the worms, and the great profit accruing from the business, all conspire to make it a most popular employment.

There are perhaps no branch of human industry offering so many and such strong inducements to pursue it as do the *Silk culture*. In five or six weeks, with care and attention, the whole labor of producing the raw silk is over, and such is the immense nett profit resulting from it, that a very few acres of even the poorest land, in that time, will yield sufficient to support an ordinarily

sized family in comfort. There is one advantage attending it, which cannot be too forcibly impressed upon the minds of landholders, and especially upon the minds of those of them who have worn-out fields, which are now measurably unproductive. The poorest sands and gravels, with very little manuring, it is known, will produce the mulberry as kindly as the richest and most generous soils. It is known too, that the foliage raised on the former, impart more elasticity and lustre to the silk, and is infinitely better suited to the production of the article, than that which is grown on the best and most fertile lands. An advantage such as this is of immense value to the country, as it places the very *sterile* portions on an equality at least with the most high priced lands in the country. Such being the fact, it necessarily follows as a natural consequence, that the culture of the Mulberry must grow in the affections of the people, for after all, *profit* is the great lever that moves all human actions, and gives impetus to human enterprise.

While we are upon this subject we would advise all who may be disposed to enter into the business the ensuing spring—whether with a view of planting out trees or cuttings, or sowing the seed of the mulberry,—to prepare their ground this fall—By ploughing or digging it up they will both clean and mellow it, and thus render it in the best possible condition to nurture and sustain whatever they may put into it.

SUPPLY AND PRICE OF WHEAT AND FLOUR.

The Editor of the Northampton Courier who has recently made a tour through the western part of New York, writes from Rochester, the greatest flour mart in the country, the following judicious remarks upon the prospective *supply* and *prices* of wheat and flour. We copy them because in the present aspect of affairs every thing which tends to throw light upon the subject is of deep concern to the community at large, and to no part more than the farming interest.

"The conspicuous buildings and the grand staple commodity of Rochester, is *Flour*. The world over, this place is celebrated for this article. Especially now it is selling for *nine dollars* at the mills! The people at the east are attributing the recent sudden advance to speculations, and they

flatter themselves that the prices will be reduced again. I have made diligent and careful enquiries among the most eminent millers here, and find that this belief is fallacious. As long as the price of Wheat continues so high, Flour must advance rather than recede. I am informed that expectation among the farmers of obtaining more for their crop than is now given, is so confident, that wheat enough to supply the mills can hardly be obtained. I heard one miller offer to contract for 20,000 bushels of wheat to be delivered within one month, at \$1.44 per bushel, but it was declined, as \$1.50 a 1.75 are the common prices now freely given here. One dollar was but a year or two since considered a high price. Great quantities have been purchased at \$2.00, but the millers prefer running only part of their machinery rather than paying such exorbitant prices. It seems to be conceded that the wheat crop at the south is nearly destroyed; and in this great wheat district, Judge Buel has given it as his opinion, after a tour through this section of the State, that there will not be half of an ordinary crop. The Editor of the Genessee Farmer thinks it may be better than that, but at all hazards, there is a falling off in this important commodity. In fact, breadstuffs the country over, seem to fall far short of all former years."

BUCKWHEAT—The Belvidere Apollo, published at Apollo, N. Jersey, says, we are sorry to learn that this grain does not turn out as good as was anticipated previous to cutting it; however on account of the destruction of the earlier crops, more than the usual quantity of this grain was sown, and more will be gathered.

Wheat, rye and corn crops failed, so that many farmers in this section who had formerly raised several hundred bushels for sale, are now obliged to purchase seed.

Flax, farmers say, has yielded this season, about the average quantity and quality of seed.

FROST—SNOW!—The Greenville (S. C.) Mountaineer of the 8th inst. says:—"On Tuesday last, the weather became unusually cold, and at about 1 o'clock, P. M. flakes of snow were seen to fall for several minutes, which melted, of course, as soon as they reached the ground. On Wednesday and Thursday mornings, the earth was covered with white frost. Yesterday the sun shone much warmer, but the nights are very cool."

SNOW—The last twelve months have been remarkably cold and unfavorable for the husbandmen, and last Wednesday morning they re-

ceived a most unwelcome visit from hoary winter, who left his white mantle over the fields in this neighborhood. The snow was about one inch in depth.

We hear that the snow fell on the Pennsylvania mountains till it was 12 or 15 inches deep.—*Belvidere (N.J.) Apollo.*

SNOW STORM.—A violent storm, accompanied by rain and snow, occurred in this place and neighborhood on Tuesday and Wednesday last. During the night of the latter, the snow fell in considerable quantities. On the Broad Mountain, snow fell to the depth of 15 inches! This is a fact ascertained by measurement. A number of hands were engaged on Thursday, in removing the snow off the Danville and Pottsville rail road, and the upper end of the West Branch rail road, to enable the coal cars to pass.

Pottsville Miner's Journal.

[From the Southern Planter.]

TURNIP FLY.

MR. EDITOR—Looking over an old newspaper the other day, I noticed some experiments tried on Turnip seed, to prevent the destructive ravages of the Turnip Fly or Grub, which are sometimes very destructive. The experimentalist stated that he discovered that the leaves were eaten almost as soon as the plants were up, so that the field was as brown as before it was sown. He thought at first that the insects might have proceeded from other plants, or the hedges. Accordingly, he took some earth from his garden and placed it in a box—sowed his turnip seed in it, and covered it over with silk gauze, so that no insect could enter; but he found them there as destructive as in the open field. He then took some earth and boiled it and put it in the box, and sowed the seed, watering it with water also boiled, with no better success than before. Having thus satisfied himself that it proceeded neither from other plants, nor was contained in the earth or water, he turned his attention to the seed, on which, by the help of a magnifying glass, he found small white flattish substances which he concluded were eggs. On some seeds he found none; but generally, two or three, and in some instances, he found five on a single seed. The difficulty now was to destroy them. To accomplish this he made some strong brine and soaked the seed in it 24 hours. It being dried thoroughly, he then sowed it with all the care mentioned above, and not a single fly was found nor Turnip injured. He found that if the brine was sufficiently strong, 3 hours soaking was enough. He says, "I now practice this method with Turnip seed, Cabbage seed, and in fact with all the cruciform plants in common cultivation, with very satisfactory success. The whole of these experiments were made on the Swedish Turnip, which is generally more infested by these beetles than any of the other sorts."

Remarks by the editor of the Farmer & Gardener.

We have no doubt that the practice of soaking the seed in brine is a good one; but it has its disadvantages. If the sowing of seed which has been thus soaked should be succeeded by several days of successive drought, the probability is, that

the seed will perish in the ground and not come up. Care should, therefore, be taken to select a period of damp weather to sow in, in which case three good effects will be secured; the destruction of the fly in the egg; the quick germination of the seed; and the rapid advance of the plant into the rough leaf state, which latter is of itself a sufficient guarantee against the ravages of the fly. Indeed, we think it would be desirable to wait several days for the occurrence of rain rather than to jeopard the loss of labor and seed in sowing in dry weather. Should seed, however, be sown during a season of drought, we believe it to be indispensably necessary that they should be harrowed in, as by so doing the moisture of the earth would save them from being destroyed.

While on the subject of the ravages of the fly, and the preventive means to be used, we will remark that the *turnip* is subject to be destroyed by an enemy equally, if not more subtle than even the fly. We mean the *grass-hopper*. The present season we prepared with great care four acres of new ground, which we sowed in turnips: the seed came up well, and as we had thoroughly pulverized the soil, and manured it well, we promised ourself a heavy crop: but we were most sadly disappointed. The scorching sun in the latter part of August and beginning of September, retarded the growth of the young plants, and ere they had gained their rough leaves, an army of grasshoppers from an adjoining clover field pounced upon them, and in a day or two cut every plant off with as much nicety and smoothness as an experienced barber deprives a customer's face of its beard. For these enemies we see no preventive but *early sowing*, and we, therefore, think the farmer's security against their incursions is alone to be found in putting in his seed at an early period. At all events he should commence as early as the 15th or 20th of July, and continue to sow until the 20th of August. By this course we apprehend that, should the season be propitious, he would defeat this deadly enemy of the turnip field.

We have not been so fortunate as to get a sight of the letter of Mr. Duponceau alluded to below, and have therefore to content ourself with giving the very excellent abstract which we subjoin:

The culture of silk is daily growing in favor among us, and promises at no distant period to furnish a lucrative employment for the industry of our citizens to such an extent as to supersede the necessity of importing from abroad the immense quantities of fabrics of this material, for which at present millions of money are expended. The venerable Mr. Duponceau, of Philadelphia, whose public spirit is equalled only by his ex-

tensive and useful acquirements, has written a letter, in which he takes occasion to enter pretty much at large into this interesting subject, in connexion with some remarks on the preparation of the article by a Mrs. Heagen and Mrs. Ritner, wife of the present Governor of Pennsylvania. It appears that Mrs. H. having devoted considerable attention to the preparation of silk, was desirous to visit the establishments in Connecticut, for the purpose of making herself more thoroughly acquainted with the processes by which this valuable article is adapted to useful purposes. The silk produced by Mrs. H., particularly the floss silk, was so excellent in quality, that Mr. D. having consulted Mr. D'Homergue, who had in 1830 and '31 conducted his experimental silk filature in Philadelphia, advised her against the proposed journey to Connecticut, being led to believe by personal observation that the article prepared by her had not been surpassed in any part of this country. The examinations made by Mr. D. in company with his friend Mr. D'Homergue, had resulted in a conviction on their part that the silk prepared by Mrs. H. and other ladies in Pennsylvania and Maryland, particularly the sewing silk, had not been excelled even in Mansfield, Conn., and that Mrs. H. had better remain at home, substituting for the ordinary spinning wheel an Italian reel, which, with a little experience, will be productive of great improvement. In treating the subject, the letter writer expresses an opinion that the coarser fabrics are not the objects to which the attention should be directed, as they can be imported on better terms than they can be made in this country, but that the raw material for the more elegant and precious stuffs, such as velvets, Florence, gros de Naples, and others of the same description, should be produced and prepared for exportation. For this purpose, he thinks that the white, Italian and Chinese mulberry should be planted every where, and that silk worms and cocoons should be produced and the art of reeling them be learned, so as to convert them into merchantable raw silk. He thinks that when cocoons shall be plenty, filatures will come of course and afford for them a ready market, and more profit than sewing silk. The opinion of Mr. Duponceau is that, when American raw silk shall be for sale in our markets, agents will come from abroad to purchase it, and will probably establish filatures in this country to supply with the raw article their factories at home. By pursuing this, which is the natural course of things, throwsters; weavers, dyers, and manufactories will be induced to flock from abroad, bringing their machinery with them, and in the end, manufactures will attain the requisite degree of perfection. He says that when a filature was established in Philadelphia, throwsters came over in great numbers, many of whom were afterward obliged to return to home for want of employment, and others are at present employed at the north throwing or twisting *foreign raw silk*. Mr. D. is afraid lest the example of the Mexicans, who manufacture foreign silk, and raise none of their own, and whose fabrics are consequently so dear that they cannot be sold out of their own country, should be followed here. A pattern filature is recommended, to be established in Philadelphia or its vicinity by

a company with the aid of the Legislature. It seems that in 1770 the Colonial Legislature of Pennsylvania, on the recommendation of Dr. Franklin, established a filature at Philadelphia, the operations of which were stopped by the revolution.

We have always thought that with a climate so favorable to the growth of every species of the mulberry, it is only wonderful that the silk culture had not been more generally attended to than it has been, and would suggest that our farmers should commence at once the planting of a description of tree, which whilst it is ornamental, will furnish in the course of a few years the basis of immense national wealth. The management of the silk worm is a thing so simple as to be within the capacity of children, to whom it affords a source of endless amusement, by exciting their interest, and affording them an immensely profitable employment without any severe extent of labor.—*Balt. American.*

From the Fredericksburg Arena, Oct. 14.

WHEAT AND FLOUR.

It is not surprising that much anxiety should be felt upon a subject which touches so nearly the comfort, and almost the existence, of the people. This natural solicitude has called forth various articles from the commercial press, some of which furnish facts and speculations, both curious and interesting to the public. It is now admitted that a very general deficit has taken place in the wheat crop of the country, and that the vacuum must be supplied by importation, to the amount of, perhaps, five millions of bushels. This calculation is made after taking into account the diminished consumption consequent upon increased economy, and the partial substitution of other articles, such as the potatoe and Indian corn, the crops of which have been or promise to be, fair upon an average. This foreign supply must be obtained from the ports in the Baltic, Mediterranean and Black Sea, as well as from Bond, in England; much of which has been derived from the United States. Some of the papers are deprecating the alarm, or rather anxiety, which prevails upon this subject, as calculated to produce a panic, disastrous to various interests in the country. This apprehension results from a false view of the matter, for the occurrence of such a panic at an early stage, is a circumstance which furnishes the best remedy against the evils incident to a scarcity of the staff of life. This is well known in England, where the earliest indications of an unpromising crop are immediately proclaimed, that merchants may be induced to resort early to foreign countries, to supply a deficit, which if realized, must inflict so much misery upon a populous country. This early intimation, this premature sensitiveness, is more indispensable to the welfare of this country, than to that of Great Britain, which latter being within a few day's sail of the great grain growing districts of Europe, can always supply herself with much greater promptitude than distant America, which must have recourse to the same market.

Much curiosity has been exhibited to know the average annual amount of grain produced in the United States. There are no data which enable us to arrive at an accurate result, but the follow-

ing table it is said, presents as close an approximation to the result as circumstances will permit—

Indian Corn	100,000,000
Wheat	50,000,000
Rye	20,000,000
Oats	20,000,000
Barley	1,250,000

It must not be forgotten that South America and the West Indies, are as dependent upon us for the article of Flour, as our own citizens. The annual exportation to those countries is supposed to amount to something like seven hundred thousand barrels. Now, it is impossible, as some would suppose, to diminish the threatened scarcity, by adding this amount to home consumption, as these countries cannot do without the article, at whatever price it may be held. The increased economy which they will be obliged to practise, as well as ourselves, will indeed have the effect of diminishing the amount exported, but this cause will scarcely carry the quantity below five hundred thousand barrels. It must be recollected, while making this calculation, that the countries in question cannot change their mart immediately, by resorting to the ports of Europe. The shipments from there are always made in grain, and there are no facilities in South America, or the West Indies, for the extensive conversion of the article into flour. But, before concluding, it may be interesting to mention a fact, which will be as curious as new to most of our readers. It is asserted, and that in the most confident manner, that wheat may be shipped from the Baltic and Mediterranean, at about half the rates charged upon the same article from Rochester to New York, and one fourth of what is charged from Ohio. Making even some allowance for exaggeration in this statement, it presents a very curious fact, the importance of which is enhanced by the circumstance, that for many months in the year our internal navigation is entirely closed. We hope the novel and unexpected state of the grain market, will induce intelligent merchants to turn their attention to this matter, and that their consequent exertions will tend to their own profit, as well as to the benefit and prosperity of the country.

SCAB ON WHEAT.

A few days ago a friend called my attention to the great injury to the wheat and rye crops from what is usually called the scab. The cause of destructive disorder soon become a subject of inquiry and speculation—I stated the cause of scab to be (which is the current opinion) the inclemency of the weather, whilst the wheat was in bloom; the blossom being broken off too early created disease by a want of that nutriment furnished by nature. He remarked that such had been his opinion—but that he had accidentally noticed the wheat and found in almost every head a small black insect, often seated upon the point of the grain, that he pursued his examination and found it general in the field. My curiosity was excited by his remarks, and I proceeded to a large field of rye and wheat; in various parts of the field I broke off the heads and found the insect he described sometimes in a white state and sometimes black, about the size of the blossom of the wheat. The insect was always

within the outer covering of the grain, and evidently fed upon the wheat. It was alike in the rye. The field of rye and wheat is almost entirely destroyed. It would be worthy the notice of the farmer to examine his wheat and rye.

A SUBSCRIBER.

MULBERRY TREES.

The white Italian mulberry trees, which are the growth of seed sowed last spring, require to be defended from the severity of the coming winter by a covering of earth, straw, chaff, or horse manure. They may be buried several inches, and probably earth or manure will afford the surest protection. If they are thus carefully covered so as not to break down the tops, it is believed they will be as certain to survive and be fit for transplanting in the spring as they would if taken up this fall and put into a cellar. They should be covered before the approach of severe frost. One gentleman in this town cropped off the tops of his mulberry seedlings in the month of August, when they were about 10 inches high; he also deprived them of nearly all their leaves at that time. Since he thus cut off the tops and the leaves, the main stem and branches have become firm and ligneous, although they have not increased in height—a second crop of leaves has come forward, so that they have lost their denuded appearance, and look remarkably tough and healthy, and will in all probability resist the effects of winter better than seedlings which have been allowed to grow without being cropped or deprived of the first growth of leaves.

The surest way of securing the Chinese mulberry trees is either to put them into a cellar, or to dig them up carefully and turn the tops and branches down to the ground—they may then be covered with a layer of chaff or straw, and dirt to the depth of a foot thrown over the straw; the Chinese mulberry, being more tender than the white variety, should be taken care of at an earlier day. The branches of the Chinese mulberry trees, which are designed for slips next year, should not be cut off until the spring.

It has been ascertained by experiment that white mulberry trees one year old are more likely to live if transplanted at that age, than they are if they are allowed to remain in the nursery two or three years. The distance at which they should be set as standard trees is, 5 feet in the rows, and the rows 8 or 10 feet apart; the intermediate space between the rows may be improved in the cultivation of white beans or potatoes, so that there shall be no waste of ground.

On the use of Lime for preserving health.

Lime is an antidote to contagion, a preservative against infection, and as a means of purifying sinks, vaults, &c. is one of the most useful of substances. By making proper applications of this cheap, but powerful agent, together with a due attention to cleanliness and ventilation, the air in jails, hospitals, ships, &c. may be rendered comparatively sweet and salubrious. A quantity of lime while hot and quick, scattered every day or two, into the vaults of back houses and other repositories of offensive matter is indispensable as well to health as to cleanliness.

[From the Ohio State Gazette.]

SILK CULTURE.

As the capability of the *Morus Multicaulis* to endure our winters has been agitated, and as the tree is decidedly the most valuable to the silk grower, (in which class a great many western farmers are already enumerated,) I propose to give a few general directions as to its cultivation; the common sense of which, and the fact that they are *practical and theoretical*, will, I trust, recommend them to every farmer who is the least interested in this subject.

Such is the luxuriant nature of the *Morus Multicaulis*, that it will grow in almost any soil, and unless checked by the poorness of a soil, or if in a soil rich by artificial means, it will continue to grow green until the unripe parts of it are frozen, which is an operation no tree will endure, for the unripe wood of every tree will be killed by the frost.

From this disposition of the *Multicaulis* to continue its growth, we derive a very common sense remedy, which is simply to put it on our poorer soils; and to save every twig, we must put it in a soil so poor that it will not grow at all without cultivation; we can give when we choose, and withhold when we choose, and of course control the tree. It follows then, that too much cultivation, or too rich a soil will kill the tree; the converse is, a poorer soil and less cultivation.

It is extremely doubtful whether there is any land under cultivation, west of the mountains, so poor as that the *Multicaulis* will require cultivation on it. A very experienced and successful cultivator, and one who has many thousand trees, which have endured the 2 or 3 last winters, says: "the best soil for the *Multicaulis* is dry loam, as well gravelly or stony, resting on a gravelly or open sub-soil, that will freely let the water pass off, and give no obstruction to the roots; or a medium quality, safer to be too poor than too rich, for I am confident that my land which is occupied by the mulberry is in better condition than when first set with it. It would be as well if the land was cultivated a year or two without fermented manure, unless quite low in condition before the trees were set in it. Sandy soil is next best, if not too loose and rich with manure. Rich, moist soil is wholly out of the question."

From the above quotation farmers will perceive that their greatest danger in the cultivation of the *Multicaulis* arises from the richness of the soil; and yet no one can doubt that there is enough of a medium quality to raise large quantities of silk; and there is little doubt that time will prove what now seems paradoxical, that the *poorest* soil of the country is the *richest*.

The whole matter may be summed up in a few words. Plant the *Multicaulis* in a poor soil, and unless very poor, withhold all cultivation, except simply to keep down the weeds, and in any event, do not cultivate or disturb the earth after about the middle of August.

TOMATOES.—The Indiana Farmer says that Tomatoes may be kept fresh through the winter, by packing them in jars—laying alternately a layer of sand a layer of tomatoes until the vessel is full, after which cover them up tight to keep the air out, and place them in a dry cellar.

The Crops in New England.—Notwithstanding the alarming accounts which have been published, a correspondent in Barre, Mass. states that there will be great abundance of hay and vegetables, and more butter and cheese than usual. Potatoes will average also the usual crop, and the corn on the rivers and high lands has not been injured.

From "Loudon's Gardeners' Magazine."

A few Facts illustrative of the Cause of Canker, and other Diseases, in Fruit Trees. By Mr. T. RIVERS, jun.

A few facts in the culture of fruit trees have caught my notice, which may perhaps serve in some way to elucidate the cause of canker and disease in those useful occupants of our gardens. The green chisel pear tree, in our soils, is particularly subject to canker, every shoot dying half way down the season after being produced; this taking place alike in wet and dry, warm and cold, seasons, and, consequently, the trees, in the course of a few years, getting to be a confused mass of cankered and dead branches, full of moss and disease. Latterly, I have observed all these diseased trees attacked by a grub, which has perforated the stem in every direction, making channels large enough to admit the finger, (as you will see by the part of a branch sent for inspection;) from which, in the summer, extravasated sap exudes, on which wasps and hornets delight to feed. In two or three years after being attacked, the trees, if left to the devastations of the grub, will assuredly die. I have for several years observed the wonderful effects produced by grafting some of the new Belgic pears on unhealthy trees, of tender sorts, in transforming them at once into health and productiveness; and this induced me to try the experiment on those trees which were being devoured alive. I calculated that, if, by some analogous change, the sap could be made healthy, it would also make it unpalatable to these worms of corruption.

It is now perhaps three or four years since I commenced operations, by grafting on diseased and half-devoured green chisel pear trees, the glout morceau; the autumn, or Williams's bon chrétien; Marie Louise, passe Colmar, and other good hardy sorts, and the effect is beyond measure surprising. Trees that *must* have died in two or three years are now full of health and vigor, and are covered with bloom buds; not a speck of canker or disease is to be seen, and in two years from grafting the grubs left the trees; the sap having become either too abundant, or too healthy for their appetites.

The difficulty is to ascertain, before grafting, what sort of Flemish pear will suit the soil; for often, after two or three years of deceitful vigor, the graft, if the sort is not hardy enough, will become diseased, and disappoint all expectations. Therefore, before decapitating the old pear trees, advice should be asked on this score; and I believe that any practical man of observation can at once say what sort will flourish, if you tell him the substratum; though it really seems that many of the Belgian pears will grow in any soil and situation, at least in this southern part of England.

I am aware that I am advancing no novelty in what follows; but this sudden change from dis-

ease and death to health and vigor is quite worth a moment's consideration, either from the physiologist, or the commercially interested fruit-grower. By giving a tree shoots hardy enough to stand against our cold and moist climate, you give it the only proper and effectual organs of respiration and elaboration; and the consequences are, continued health and productiveness. It is interesting to observe the total reverse of this, if some of the old and tender sorts of apples and pears are allowed to grow, and "have their way," alongside trees grafted with hardy varieties. The shoots of the tender sorts, even the winter after being produced, generally begin to canker and decay: the sap, in spring, losing its proper and healthy channels, forces out at the bases of these cankered shoots others that, in summer, are strong and luxuriant, but which again, in like manner, in the following winter, canker and die. The juices of the plants, from not being properly elaborated, become diseased, and food fit only to nourish those animals that seem created to feast on decay; while the whole tree becomes a confused mass of dead and dying branches. From close observation of the effect of these last two or three favorable warm summers, I cannot think this altogether produced by the climate, but that it arises from some inexplicable effect proceeding from the variation of soils; for, in situations which, as far as regards climate, are more moist and cold than any in this part of England, I have seen sorts that canker here flourish without spot or blemish. I am, however, almost equally at a loss when I impute it to unfavorable soils, as we have here a most remarkable variation in soils, from a dark strong clay, to a rich friable stratum of loam, 10ft. in thickness, resting on a substratum of dry sand, *apparently* the most favorable combination possible for fruit trees: and yet, even here, some of the old varieties of pears, such as crassane, brown beurré, Colmar, &c., in five years from the graft, canker, and seldom show a fruit-spur; but graft these cankered trees with new and hardy sorts, and fruitfulness and health will immediately take the places of disease and death.

The grand point in fruit culture is, to have sorts producing shoots that do not die at the extremities; they will then furnish leaves enough for all the offices of nature. This is no new doctrine, as we have been often told the *effect* of fruit trees in producing tender shoots; but the *cause* is still worth enquiring into: for well I know that it has often, and with apparent justice, been attributed to cold seasons and wet soils; though I know equally well that it occurs in seasons and soils quite the reverse. How, then, shall we account for the circulating fluids being so inimicable to health in some varieties of fruit, and not in others? I can also assert, from experience, that sorts of fruit recently obtained from seeds are not by any means all exempt from canker; for several seedling apples and pears (perhaps the average may be one in a hundred) I have found equally or even more tender than our old varieties: I have grafted these tender striplings with robust sorts, and have at once changed their nature. This is interesting, and, to a reflective mind (it must not be overburdened with the cares of a nursery), offers a vast field of enquiry. I must conclude with one recommendation: let the fruit amateur or orchardist, the instant he finds a fruit tree making shoots

it cannot support, either root it up, and plant it afresh; or graft it with some robust and productive variety.

Sawbridgeworth Nursery, Herts, April, 20, 1836.

From the same.

On the Treatment of Old Fruit Trees which it is wished to preserve; and on the Advantages of laying Cow-Dung at the Bases of their Trunks, and also at the Rootstalks of Vines. By W. A. L.

In most old gardens there are to be found aged remains of some favorite fruit tree, which the proprietor is unwilling to have removed, either from its having produced excellent fruit, or from early associations connected with it. Hence it still retains its place, though age, the chisel, and the pruning-knife have been hard upon it, and it remains a heartless stump, and almost leafless skeleton of a tree.

Such was the case, some twelve years ago, with a green gage plum tree, which for many years had been trained against a wooden fence ten feet high, and had long delighted both old and young by the yearly produce of an abundant crop of delicious, juicy, high flavored fruit; but it was now old, and exhausted; and its yearly crops were "few and far between."

In the course of some judicious improvements, it was found necessary to remove the old wooden fence, and to build in its place a substantial brick wall. By this event, a favorable opportunity occurred to have the old plum tree removed, and a young healthy tree planted in its place. Having represented to my employer the propriety of so doing, his answer was, "I wish if possible, to preserve it: it has produced excellent fruit, and was a great favorite with my father. See what you can do."

As many young gardeners, on entering their first situation, may be similarly circumstanced, I will relate the means I adopted, together with the result. In the first place, I cut down the tree to the lowest live wood on the bole (which, in this case, was $2\frac{1}{2}$ feet from the ground), leaving the branch 20 inches long; I then collected four barrow loads of fresh cow-dung, and laid it round the stem to the distance of four feet on every side, and rising conically 6 inches above where the trunk was cut off; and, in order to conceal the unsightly appearance of the dung, I covered it with sand 2 inches thick. This was done in February; and in due time the live buds of the branch broke, and grew apace. During the heat of summer, the surface of the dung became finely pulverised; and, on examination, I found that strong healthy roots had issued from the bottom of the branch which was left, and had spread through the whole mass of dung which enveloped it. The following spring, I gave it another coating of the same, extending to the distance of 6 ft.; repeating it the third year, and occasionally since. The result was that the tree grew so rapidly, that I was soon enabled to form a handsome, well-regulated, fan-shaped head, which fills the whole space of its original allotment, and has borne, for these eight years past, excellent and abundant crops.

This is a mode that may be safely adopted with old fruit trees that are worthy of preservation,

whether cut down or not. In the latter case, I would recommend that the soil be removed to the distance of 4 or 5 feet from the bole, to the depth of the strong leading roots, and a layer of fresh cow-dung, 6 inches thick, spread on them, and covered with sand, and left for one season to the influence of the sun and air. It will soon be discovered whether the cow-dung acts beneficially, by the renewed vigor of the tree, and its sending forth young wood. In this case, a judicious pruning of the old wood is necessary; and, in the spring, another and more extended layer of dung should be added.

Where vines are planted on the outside of forcing-houses, and the roots have got into improper subsoil, the removal of the soil from the stem, and a barrowful of fresh cow-dung laid round them, never fails to cause the protrusion of strong vigorous roots; but it is advisable not to begin forcing early, when it is applied, as the moisture, in very cold weather, may prevent the due circulation of the sap.

GATHERING AND PRESERVING RUTABAGA, OR TURNIPS.

The season for harvesting should be postponed as long as there is any probability that the weather will permit, or before hard frosts set in. Judge Buel thus describes this mode of gathering:—"The roots are pulled up and laid on the ground, the tops of two rows turned towards each other. The pullers are followed by a man or boy with a bill hook, who with a light blow, cuts the tops as fast as three or four can pull. Three men will in this way harvest of a good crop, 300 bushels a day." If any difficulty is experienced in pulling them in consequence of the hardness of the soil, the earth may be turned off from the roots by a plough, and then gathered by hand. A writer in the N. E. Farmer, gives the following as his method of preserving them through winter. "I had a cellar made under my barn 7 feet deep, 26 feet wide, and 32 feet long; this, if I am right in my figures, will hold 4000 bushels. To dig and stone this cost me \$46, digging and drawing the stone \$20 more, and \$4 for pointing, making in all \$70, the interest of which is \$4.20. Now I know no other way that 4000 bushels of turnips can be secured for \$4.20, their bulk being 19 or 20 cords. There is another very important consideration, when they are in the cellar they are perfectly secure and can be had every day through the winter, when they are most wanted, which is not the case when they are covered in the field." But when it is not practicable to put them in a cellar, they may be placed in a ridge or long heap two or three feet high, and of an indefinite length, covered with straw and earth, if the heap is made larger, the roots are liable to become injured by heating. In order also to allow the escape of the heated air produced from the heap, it will be necessary to make a hole at the distance of every few feet and partially close it with a wisp of straw.

Raising and Preserving Seed.

The Ruta Baga is apt to degenerate, if the seed is not saved with care. The best roots, in form and size, should therefore be selected, and carefully preserved over winter, and set early in

the spring in a rich soil, remote from any roots of the turnip or cabbage kind, to preserve the seed pure and unmixed. The seed should remain until fully ripe, and then be gathered.

Genesee Farmer.

GATHERING AND PRESERVING MANGEL WURTZEL, OR BEETS.

Roots of mangel wurtzel are equally tender with the potato, and equally affected by the frost, consequently, as they are much exposed above the surface of the earth, they will require attention without delay, or the crop may be lost. As a general rule they require nearly the same treatment in preserving for the winter, as the potato; they should however be kept as cool as is consistent with their safety, and they will be in fine condition in the spring. In gathering, care should be taken to cut off the leaves about half an inch above the crown, as they will not keep so well when cut more closely. A writer in the *English Farmers' Journal*, adopted with success, the following mode of preserving this root: "I packed it in long heaps, about seven feet wide at the bottom. I begin by forming the outside with the roots, not stripped of their tops; tops outward; the internal parts to be filled with roots without leaves; continue one layer over another, until the heap is about six feet high, and about two feet broad at the top, which may be covered with straw and earth; the ends of the heap should be covered in the same way; the leaves form an efficient covering against rain and frost." This method will answer well where it is intended to feed out the roots late in autumn and early in winter, but it is not by any means sufficient to preserve them from the winters of this country until spring. They should therefore in such a case, have additional covering. T. & H. Little, of Newbury, Mass., who have distinguished themselves by their successful cultivation of this root, say, "As to the best mode of preserving them, we have tried divers ways—by pitting them, by putting them into a barn and covering them with hay, and putting them into a cellar; the last mode we think the best."—*Gen. Farmer.*

Anakim Corn grows extensively in some of the southern states. Its size is gigantic. We have seen one stalk of it which grew in a garden in this town, measuring $12\frac{1}{2}$ feet in height, and 5 inches in circumference at 6 feet from the ground. What an immense crop of stalks, to say nothing more, from an acre of Anakim Corn!—*Northampton Courier.*

Top-dressing Grass Lands—An important fact in regard to this matter has been communicated to us by an intelligent visiter, viz. that the same quantity of manure is twice or thrice as beneficial on young as it is on old meadow. Plants, like animals, if stinted or half starved when young, seldom acquire great vigor or luxuriance afterwards; the organs of nutrition become adapted to the early supply of food, and cannot be readily enlarged on its being increased in advanced age. Hence the advantage of employing rich soils for nurseries, of keeping young farm-stock well, and of applying manures to young grass. A gentleman top-dressed some grass lands at one, two and three years old, and

he found the benefit to the first, double what it was to the second, and treble that sown on the third. The hint is one of some importance to husbandry, and we hope it will be improved upon. The rule holds good in regard to animals.

Cultivator.

MARYLAND HORTICULTURAL SOCIETY.

October 8—The following articles were exhibited:

Mr. Samuel Feast, 17 seedling varieties of dahlias.

Mrs. G. H. Keerl, 20 varieties of dahlias, such as Elliott's king, rhudii, yellow turban, king of yellows, guttota major, comosa, Widnall's perfection, globe red, do. purple, lady Greenville, Lord John Russell, Colvill's perfecta, rising sun, pieta formussissima, purpurea perfecta, bonny dee, queen of roses.

Mrs. Robert Taylor, 8 varieties of dahlias, Wells' Amanda, Duke of Tuseany, Duchess of Richmond, Paroquet, Widnall's Black Prince, &c.

October 15—Mr. F. Harrison, dahlias, Levick's incomparable, Huntingdon, Martha Washington, 6 fine seedlings.

Col. McLellan of Gettysburg, a mammoth pumpkin, weighing 117 lbs., circumference 5 feet 7 inches.

Charles Timmius, gardener to Mrs. Robt. Gilmore, a plate of very fine raspberries.

Mrs. Wm. J. Alcock, a plate of very fine seedling peaches.

From the Essex North Register.

MORALS OF GARDENING.

We have long believed that he deserves well of the community who can provide an amusement for the young which shall at once be free from a bad moral tendency—possessing sufficient interest in itself to take the whole attention for the time away from the pursuit of doubtful character,—and leave the mind refreshed and prepared for the relish of those sober duties of life for which too many of our amusements create an aversion.

Without claiming much credit for the discovery, we think Horticulture, or, if you please Floriculture, to be of this class. * If this should be read by any one who has been accustomed to send his children for a misdemeanor into a forest of weeds, and to compel them to work their way for an hour, as a punishment;—in him it may excite a smile that we talk of the thing as an amusement. We are not startled, however, at such a feeling; for we are clearly convinced that it is possible—ay easy so to interest young persons of both sexes, in the laying out, well ordering, and even weeding a garden, that it shall be to them a pleasant way of spending time. Children naturally love flowers, and early give signs of their interest, and only need the encouragement of parents to show their enthusiasm in "shape or action." If encouraged by the interest and occasional supervision of their parents they will delight to spend much of their time amid the scenes—to all intents of their own creation. The exercise conduces to their health, and it gives ample scope for the cultivation of their taste in their choice of flowers, of their own invention in laying out and designing and in adopting

experiments for the preservation and propagation of various kinds of plants, &c. It induces that susceptibility to enjoy the works of nature, which leads the mind to reflect with interest on the being and character of nature's God. It has been said that an "undevout Astronomer is mad"—so is an undevout, unthinking Florist. God is as manifest in the beautiful flower that charms and delights, as he is in the more grand, but not more wonderful parts of his creation.

Apples, Pears, Peaches and Plumbs, of the finest kind, grow in extreme abundance in the western part of the State of New York. Great attention seems to be bestowed upon Fruit. Adjoining the poorest farm-houses and in the most isolated spots, the traveller notices, with admiration, the most thrifty orchards, with healthy trees loaded down with the different species of fruit. It is evident that the hand of cultivation, of taste and of care has been bestowed upon these orchards, and that they are not left to produce spontaneously, whatever crudities in taste and form, nature chooses to bestow. We regret that more thought is not given to the subject of good fruit among us. Most of it is execrable, not fit even "for the hogs," and certainly not suited to administer to the rational comforts and enjoyments of man.

"THIS FARM FOR SALE," is written in emphatic letters upon the fences of some of the best agricultural homesteads in the western part of New York. And why is it so? Is it because the soil holds out no inducements to its cultivation, or because there is a spirit of discontent and restlessness abroad, which is driving hundreds and thousands to abandon their firesides and the home of their ancestors? One of the greatest secrets of happiness we all so eagerly are in pursuit of, is *contentment*. By which we mean, the absence of a repining disposition, of a querulous and complaining spirit. Perhaps in no section of the United States can be found better soil and more productive farms, than in the western part of New York. The land is susceptible of easy cultivation, and it yields luxurious crops.—The climate is healthy, the access to navigable streams and canals and great roads within a short hour's ride, and if contentment is to be had, happiness to be found, it is to be looked for in such situations. Yet people there seem to be dissatisfied with present good, and many of them forget what shadows they are pursuing, and thus it is hundreds, nay thousands of the old and wealthy farmers, are selling off their estates, boxing up their merchandize and leaving home and all its endearments and delightful associations, merely to enhance their wealth by settling in the western wilderness!

"Man never is, but always to be blest," was as true in the time of the immortal Pope as in our own day. Forever in pursuit of some imaginary good thing, what wretchedness and discontent the mass of men entail upon themselves. Dissatisfied with their present condition, they seek to improve it by change of occupation and residence. And yet how often the very end sought, the pursuit coveted, is the source of immediate misery or future degradation. It is not every dollar we gain which will make us happy, any

more than every sigh we utter or tear we shed tends to make us miserable. It is not in realizing the good, so much as in anticipating its approach, that the mind derives pleasure, and after sacrificing what we enjoy most and love the deepest, to a mercenary ambition, how poor and unsatisfying and inadequate to give us comfort and bestow happiness, is the reward.

It is with a view to the ultimate good of the frugal and virtuous population of New England, that we would urge upon them the blessings of *contentment* at home, with its various comforts, rather than the indulgence of illusory hopes of acquiring opulence abroad by a mere change of local situation. Labor, stern and severe, must be indulged elsewhere, as here, and toil there has less to soften its weariness, than among friends and kindred in New England. The beautiful fictions, inwrought with the truth, told of the western world, are suited to please the imagination and beguile the ear. They warp the understanding and do violence to the better judgment. But it is hard to sever the truth from exaggeration, and it is only by painful and irreparable experience, that the scales are lifted from off the eyes of the too credulous believer. "May you die among your kindred," is the beautiful sentiment of the ancients, and it has lost none of its pertinency with us of the present day. We are sensible all expostulation and argument is lost upon those of our friends, who have made up inflexible opinions touching the utility of emigration. But to those who still doubt and falter, we charge them to 'count the cost,' and not abandon comfortable houses and kind friends and endeared circles for mere mercenary good, expecting that the accumulation of sordid gold, will secure here on earth the serenity and enjoyment and happiness of heaven!—*Northampton Courier.*

War with the Bees.—Our quiet neighbors at West End, were on Tuesday put in no little commotion by the singular and unexpected breaking out of a war in their territories, which raged with great fury for several hours, and whilst it lasted was destructive to man and beast. We have to enumerate one killed! many wounded, and multitudes put to flight.

It seems that the Bees in a gentleman's garden became enraged at the near approach to their hives of two horses and carts which were backed up for the purpose of unloading wood. They sallied out at once and attacked with vigor the horses and drivers. In a few minutes the drivers were put to flight, but the horses not being able to disengage themselves, had to bear the blunt of the onset as they best could, and that was but feebly indeed. One of the poor animals was stung so severely that he actually died in a short time, and the other was rescued by the servants wrapping themselves in blankets and going with determination to his assistance. This accomplished, all hands, we believe, precipitately retired from the vengeance of the winged warriors.

The Bees, finding that their enemies had "ingloriously fled" from the field of battle, resolved to carry the "war into Africa." Mustering their forces they invaded the village, scattering themselves abroad, stinging pigs, dogs and cows, and chasing men, women and children. They abso-

lutely held entire possession of the enemies' country for some time, driving back several pedlars who attempted to cross the Stone Bridge with their wagons.

The approach of night put an end to the contest, but the justice of history compels us to say, after a calm review of the events of the whole day, that considering all the facts and circumstances, the Bees had decidedly "the best of the battle."—*Alex. Gaz.*

LIABILITIES OF THOSE WHO TAKE NEWSPAPERS.

The laws declare that any person to whom a periodical is sent, is responsible for the payment if he receives the paper or makes use of it, if he has never subscribed for it, or ordered it to be stopped. His duty in such case is not to take the paper out of the office, or tell the person with whom the papers are left, or the publisher, that he does not wish for it. If papers are left in a post office or store, tavern or other place of deposit, and are not taken by the persons to whom they are sent, the postmaster, store, or tavern-keeper, &c., is responsible for the payment, until he returns the paper, or gives notice to the publisher that they are lying dead in the office. Such being the facts in the case, it is a query whether publishers of periodicals are faithful to the government and the laws when they allow so many frauds to be practised on them without notice. Can there not be some mutual understanding on this subject?

The following is extracted from the "Instructions to Post Masters."—"In every instance in which newspapers, that come to your office, are not taken out by the person to whom they are sent, you will give immediate notice to the publisher, adding the reason, if known, why the paper is not taken out."—*Lancaster Express.*

INFORMATION WANTED.

DANIEL SCOTT and DORCAS his wife, emigrated to the Western country many years ago, from the County of Caswell, N. C. They are supposed to reside, if living, in one of the States of Tennessee, Alabama, or Mississippi. The object of this is to notify them, if they are alive, or if they are dead, the children of the body of Dorcas Scott. (who was Dorcas Cannon) that if they will address a line to Ann Scott, (sister of Daniel Scott) directed to Danville, Va., they will hear in reply, of something materially to their advantage.

The undersigned, who is an elderly and infirm female, humbly entreats editors of papers, in the Western and South-western States, as an act of benevolence, and in furtherance of the ends of justice, to give the above a few insertions in their respective journals. ANN SCOTT.

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

aug 30

Light near Pratt-st. whf.

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved Jacks, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 13½ hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address

I. I. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth st. Philadelphia. Philadelphia, Oct. 13th, 1836. oc 25

DAHLIAS.

THIS Splendid Flower has but recently been introduced into this country, and consequently but little known, and although I have mostly devoted my attention to the culture of articles of the most useful class, yet flowers are not without their usefulness; the more we adorn our yards and gardens with flowers, and useful shrubs and trees, the more we increase our love for home, the spot alone where true happiness is to be found; and having cultivated this flower rather extensively for three or four years, I am enabled to judge of its merits, and think the various beautiful colors and shades, large size of its flower, long continuance in bloom, and ease of culture, are properties deserving the notice and culture, not only of the wealthy, but also of every cottager in the country.

It is only necessary to see one of them in full bloom, containing at one time from 10 to 30 flowers, from 3 to 5 inches in diameter, to become an admirer of it, especially when we see a group of them of all colors, stripes and shades. They commence blooming here the middle of June, and continue until frost.

For further information, I herewith add an extract from J. C. Loudon's Practical Gardening, published in London, 1827—since then they have been very much improved in many respects.

"The roots of the Dahlias are tuberous, and fasciculated, the stems rise from 5 to 8 feet, covered with large compound leaves, resembling those of the Dwarf Elder, and with side branches bearing numerous flowers of a great variety of colors, which appear in August, and continue until frost; the plant grows wild in Mexico, in sandy meadows, and was sent to Madrid in 1789—from thence to France, Germany, and England; at present the Dahlia is the most fashionable flower in this country, and the extent of its culture in some of the nurseries is truly astonishing, especially in that of Lee; nor is this to be wondered at, as Sebene observes, for, independent of the great beauty and diversity of the flowers, they are in perfection at a season when, till they came into notice, our gardens had but little ornament."

CULTURE.—Plant the roots, or potted plants, into the garden as soon as received, any time between the first of May and middle of June, in rich well prepared ground, 3 to 4 feet apart, unincumbered with shrubs or other plants, each plant must have a stake planted with it 18 inches deep and 5 to 7 feet high, according to the height of the plants, and tie up the plants to it as they grow.—Take up the roots after the tops are killed by the frost, and after drying them a few days, pack them away in a cellar in dry sand or mould, safe from frost. Priced catalogues of potted plants and roots of this flower, can be obtained gratis at my Nursery, or at the Maryland Agricultural Repository, Light st. Baltimore.

ROBERT SINCLAIR.

P. S. Samples of these flowers may be seen at the horticultural room, and our store in Light st., or at the Nursery, where there is the most extensive, and best bloom that ever has been in this State—to see them the citizens of Baltimore are respectfully invited. R. S.

DEVON STOCK.

THE editor of the *Farmer and Gardener* can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the *Farmer and Gardener*. an23

FANCY PIGEONS.

THE editor of the *Farmer and Gardener*, Baltimore, Md. has the following kinds of Fancy Pigeons for sale, which he will dispose of at the prices annexed to each.

Turbots, \$2.50 per pair—Carriers, \$3 per pair—Fan Tails, \$2.50 per pair—Trumpeters, \$2.50—Nuns, black with white heads, and white with black heads, \$2 per pair—Croppers, \$3.50 per pair.

Also 1 dozen pair GERMAN CHICKENS, of all colors, with large top knots. These chickens are not only favorites on account of their beauty, but because of their laying propensities.—Price, \$3 per pair. oct 18

A JACK FOR SALE.

THE editor of the *Farmer and Gardener*, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire.

Price, \$500.

All letters upon the subject must be post paid. oct 18

TWO POINTER PUPS.

FOR SALE, 2 handsome pointer pups, the one 4 the other 2 months old, and both warranted to be of pure strain. The price of the first named is \$10, that of the latter, \$5. oct 18

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

aug 30

R. SINCLAIR, Jr.
Light near Pratt-st. whf.

NEW CHINESE MULBERRY,

Or *Morus Multicaulis* Trees and Cuttings, for sale.

THE SUBSCRIBER has a large stock of these trees, very thrifty well rooted plants, 2 to 5 feet high, raised in this country, under his superintendence, which would be sold according to size, on pleasing terms, and carefully packed and forwarded to order to any section of our country.

And from six years experiments in cultivating this tree, he is decidedly of opinion, that there is no tree so well calculated to raise silk. Any information relative to its culture, will be furnished to purchasers if requested.—Also the Italian white mulberry 2 to 3 feet, very cheap.

ROBERT SINCLAIR.

Clairmont Nursery, near Baltimore. se 20

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	7 00	8 00
CORN, yellow,.....	bushel.	90	93
White,.....	"	90	91
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	18 1/2	20
Upland,.....	"	18	21
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	—
Do. do. baker's,.....	"	—	—
Do. do. Superfine,.....	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	—
" " wagon price,.....	"	9 50	—
City Mills, extra,.....	"	—	9 50
Do. do. Superfine,.....	"	9 00	9 25
Susquehanna,.....	"	—	9 25
Rye,.....	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. in bbls.	bbl.	—	4 75
GRASS SEEDS, red Clover,.....	bushel.	5 50	6 00
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	2 50	3 00
Tall meadow Oat,.....	"	2 25	2 75
Herds, or red top,.....	"	1 00	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 50	8 75
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	50	53
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	5 00
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	102	110
Susquehanna,.....	"	—	—
TORRACO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	5 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
" for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	—
Red, best,.....	"	1 80	1 90
inferior,.....	"	1 40	1 60
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhds.....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
Wool, Prime & Saxon Fleeces, ..	pound.	55 to 68	30 to 32
Full Merino,.....	"	48	55 28 30
Three fourths Merino,.....	"	45	48 26 28
One half do.....	"	40	45 26 28
Common & one fourth Meri.	"	36	40 26 28
Pulled,.....	"	33	40 26 28

Howard st. Flour, sales limited, receipts very light.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	17	18
BACON, hams, new, Balt. cured....	pound.	14	—
Shoulders,.... do.....	"	—	14
Middlings,.... do.....	"	—	14
Assorted, country,.....	"	25	—
BUTTER, printed, in lbs. & half lbs.	"	20	28
Roll,.....	"	—	—
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"	2 12	2 25
EGGS,.....	dozen.	20	25
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	8 12	—
Mackerel, No. 1, —, No. 2	"	9 50	10 50
No. 3,.....	"	—	5 00
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,..... par	Farmers Bank of Virginia 1/2
Branch at Baltimore,..... do	Bank of Virginia,..... do
Other Branches,..... do	Branch at Fredericksburg do
MARYLAND.	Petersburg,..... do
Banks in Baltimore,..... par	Norfolk,..... do
Hagerstown,..... 1/2	Winchester,..... do
Frederick,..... do	Lynchburg,..... do
Westminster,..... do	Danville,..... do
Farmers' Bank of Mary'd, do	Bank of the Valley,..... do
Do. payable at Easton,..... do	Branch at Romney,..... 1
Salisbury,..... 5 per ct. dis.	Do. Charlestown,..... do
Cumberland,..... 1	Do. Leesburg,..... do
Millington,..... do	Wheeling Banks,..... 2a2 1/2
DISTRICT.	Ohio Banks, generally 3a3 1/2
Washington, } Banks, 1/2	New Jersey Banks gen. 1 1/2 a2
Georgetown, } Banks, 1/2	New York City,..... 1/2 a
Alexandria, } Banks, 1/2	New York State,..... 2 1/2 a3
PENNSYLVANIA.	Massachusetts,..... 2a2 1/2
Philadelphia,..... 1/2 a	Connecticut,..... 2a2 1/2
Chambersburg,..... 1/2 a	New Hampshire,..... 2a2 1/2
Gettysburg,..... do	Maine,..... 2a2 1/2
Pittsburg,..... 2a2 1/2	Rhode Island,..... 2a2 1/2
York,..... 1/2 a	North Carolina,..... 3a3 1/2
Other Pennsylvania Bks. 1 1/2 a2	South Carolina,..... 3a3 1/2
Delaware [under \$5]..... 3a4	Georgia,..... 3 1/2 a4
Do. [over 5]..... 1/2 a2 1/2	New Orleans,..... 6
Michigan Banks,..... 5a	
Canadian do..... 5a	

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltin ore

sep 27

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper.

Letters on the subject must be post-paid. oc 1

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thin Rind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep..

4t.

FOR SALE,

Upwards of 200,000 silk-worm eggs.

Address J. A. S. Patriot Office, Baltimore, Md.

Sep. 27.

3t.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1/2 to 4 feet—the 2 feet and 1 1/2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.

se 27

ROBERT SINCLAIR.

CHINESE MULBERRY TREES AND CUTTINGS.

THE best varieties of CHINESE MULBERRY, (Morus Multicaulis) from France, Italy and China, of one, two and three years' growth, may be had in large or small quantities, from S. WHITMARSH's extensive collection, and forwarded to any part of the United States, according to order, with directions for propagation.

It is confidently believed, that the present mode of culture adopted by us, will prove a certain and secure protection against the severity of winter, and the best method by which to increase the foliage and multiply the number of trees.

All orders directed to the subscriber, will receive immediate and faithful attention.

In behalf of S. WHITMARSH,

DANIEL STEEBINS.

Norhampton, Sept. 7.—20

3t.

POINTERS AND MASTIFFS.

TEN Pointer pups about 4 months old, of good strain —warranted genuine.

ALSO—4 Mastiff pups, considered above all others the most faithful watch dogs.

The above pups can be procured by any persons wanting either of them, by application to the editor of the Farmer and Gardener, Baltimore.

All applications by letter, must be post paid.

3t

sep 20

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Hint to subscribers—Silk in the United States—supply and price of Wheat and Flour—Buckwheat—Frost and Snow in South Carolina—Snow in New Jersey—do. in Pennsylvania—Turnip Fly, with remarks by the editor—Mr. Duponceau on the silk culture—Wheat and Flour—Scab on Wheat—mulberry trees—on the use of Lime—the Silk Culture—Tomatoes—Crops in New England—Canker, &c. in fruit trees, by Loudon—on the treatment of old fruit trees, by the same—gathering and preserving Ruta Baga—do. Mangel Wurtzel—Anakim Corn—Top dressing Grass-lands—report of Maryland Horticultural Society—moral of Gardening—Fruits in New York—Emigration from do.—war with the Bees—liabilities of those who take newspapers—Information wanted—Prices Current, Advertisements.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 27.

BALTIMORE, MD. NOVEMBER 1, 1836.

Vol. III

THIS publication is the *successor* of the late
AMERICAN FARMER,
and is published at the office, on the west side of Light,
near Prattstreet, at FIVE DOLLARS per annum, payable in
advance. All subscribers who pay in advance, will be en-
titled to 50 cents worth of any kinds of seeds, which will
be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, NOV. 1, 1836.

"A Subscriber," &c. shall speedily have his
wishes gratified.

While on a visit to a neighbor some evenings
since, he showed us a part of his corn field which
had formerly been a celery bed, on which he as-
sured us the corn grew more luxuriantly and
withstood the drought better than any other part
of the field, although every part of it was manured,
and ploughed alike. He ascribed, and as we
thought with great propriety, the difference to
the circumstance that that peculiar spot had been
deeply penetrated with the spade in its prepara-
tion for the celery, and allowed the roots of the
corn a better opportunity to search for food
beyond the influence of the parching sun. This
fact would seem to plead much in favor of deep
ploughing, and we hope the hint will be improv-
ed upon the ensuing season. We have ever been
its advocate, and we have been so from a convic-
tion of the common sense that was about the ar-
gument which presented itself to our mind in fa-
vor of the practice.

We learn from the Baltimore American that in
the early part of the past week a sale of 2000 bush-
els prime German wheat was made (in this city) at
\$2. There is now no foreign wheat in market. We
find by reference to the Custom House books that
the quantity of wheat imported into this market
from the 1st to the 28th of this month was 43,-
408 bushels. During the first nine months of the
present year the import of wheat from Europe
into this market was 120,000 bushels, making the
aggregate import from the 1st of January 1836
to this day, 164,408 bushels.

Beet Sugar in England.—Agriculturists in
England are beginning to turn their attention to
the cultivation of beet root, in consequence of the

success which is understood to have attended the
attempts to make sugar from it in France and
elsewhere.

WORK FOR NOVEMBER.

With the first day we commence our labors for
the month, and fain could wish to be able to say
as we did this time last year, that it had been usher-
ed in with balmy weather; but, as the ways of
Providence are inscrutable to the ken of humani-
ty, we can only hope that it may be all that the
husbandman could wish for; for most certainly
he will need all the aid of that kind that may fall
to his lot. With this brief introduction we will
proceed to detail the labor that should be attended
to during the present month, whether it be on the
Farm, in the kitchen, or flower garden.

ON THE FARM.

From the sad results of the labors of the past
season, the interests of the agriculturist require
that he should omit no labor which can be per-
formed during the remaining weeks of autumn,
if he desires to make up for what he lost by the
disasters produced by insects, rain, drought and
frost the preceding year. It is a melancholy du-
ty to dwell upon the failures of the late crops,
and the duty would be still more painful to trace
those failures to their causes, because while their
ruinous effects are easily observed in curtailed
revenues and consequent embarrassments, those
causes, which have visited upon him and those
dependent upon his exertions for support, in ma-
ny instances, privations which he and they were but
ill able to bear, are for the most part concealed by
a veil which it is not his province to lift. He
knows that the Hessian Fly, in its insatiate rava-
ges, did despoil him of that reward which he had
hoped his labors merited; but the specific caus-
es which rendered up his wheat crop, as a legiti-
mate spoil to its voracious and unsparing ap-
petite is hidden from his knowledge. He can
trace and calculate the amount of injury done,
but beyond that, except through speculation, he
cannot penetrate. As yet it is unknown to him
whether the *deposit* by the insect be made up-
on the *grain*, or upon the *stalk*—and thus grop-
ing in the dark he finds himself incompetent to
determine what are the precise preventive means
he should use. And such must be his situation

until a series of experiments, too strong to be
resisted, shall have been made, to settle the long
mooted and vexatious question. Writers of great
power have been arrayed upon both sides,—ex-
periments and facts, equally poised, have been
adduced to give a verdict on either side; but
still the mind of the observant husbandman
doubts, and is left in a state of uncertainty: and
thus it is, that all the most astute can arrive at, is,
that if the *deposit* be really made on the *grain*,
that the remedy is alone to be found in *alkaline*
or *caustic soaks*. But then those who maintain
that the egg of the fly is laid upon the stalks af-
ter the plant comes up, in autumn, affirm, that
the speck or *ova* which is to be seen upon the
grain is the egg of the *weevil*, and while they
admit that this may be dislodged by submitting
the wheat seed to the soaking operation, assert
that it is in fact no security against the *fly*, be-
cause as before premised, its *deposit* is made
subsequently to sowing. They admit to be sure
that the stimulating effects of those soaks will
give to the young plant an enhanced chance of
avoiding the depredations of the insect. And
with great propriety, if their hypothesis be well
founded, contend, that in addition to cleansing
and stimulating the seed, the farmer should *sow*
later, so as to deprive the egg of the opportuni-
ty of hatching, by sowing the seed too late for
the *ova* to be warmed into life—and they pre-
scribe that the propitious time is from the 1st to
the 10th of November.

We have thus briefly stated the views of the
litigants, and shall content ourself by playing the
umpire so far as to advise that soaking in brine,
ley-ashes, or lime water, and late sowing, should
both be adopted. Those, therefore, who may
not have got in their *wheat* should without delay
proceed to do so. If they should use the pre-
caution recommended, they will be doubly arm-
ed against one of the most deadly and insidious
foes known to the husbandman,—and, if after u-
sing these preventives, their crops should fall vic-
tims to the superior subtlety of the enemy, the
consolation of having deserved a victory will be
pleasing even under the mortification of defeat.

Rye—If this grain has not yet been put in, de-
lay no longer in so doing; for there is yet am-
ple time to secure a good crop. But if your

ground be *thin*, recollect that, as no living body, save the air-plant and chamelion can live without nourishment, you will increase your crop by putting on a few cart-loads of manure, or other stimulating substance, and that it matters not whether it be in the shape of well-rotted barn-yard offal, compost, vegetable mould, ashes or lime.

If you have orchards that you wish to preserve from the inroads of the canker-worm, scrape off the dirt around the trunks of your trees a few feet, put it in piles, and submit it to the action of heat. To do this effectually you have ample materials in the brush in your woods. After it shall have been thus burned, you may replace the earth and ashes, and will not only destroy thousands of those destructive worms, and save many a valuable tree that would otherwise fall a prey to their attacks, but increase the vigor of your trees, improve the quality of your apples, and above all be better contented with yourself from a consciousness of having done your duty.

Roots—Every farmer should exert himself in digging and getting in his potatoes, as the sooner they are removed from the influence of the frost the greater security there will be in their keeping through the winter. Those who have good warm cellars need no better place to protect them. Those who have not such convenience, will of course find a substitute in a mound of earth; but in either case the potatoes should be removed to their place of deposit so soon as dug, before exposure to sun and air.

Turnips that were sown early and are matured should be taken up—those that were sown late will grow yet for a week or two.

The **Corn** should be pulled as soon as it shall be dry, husked and put away, and care should be taken to preserve the husks, as every pound of provender will be of service and in demand. If the husks were cut in the cutting box as straw is, and sprinkled over with brine, or steamed, the cattle would eat them with avidity and without loss. The cornstalks too if cut into small pieces, steamed and salted, would prove not only an acceptable but a highly nutritious food, as it is certain that the cooking process greatly tends to restore the saccharine matter, and thus to augment the quantum of nutrition. The judicious calculating farmer who acts upon the principle of making through his *saving*, need not be told that at a period of general scarcity like the present, that every thing which can be, ought not only to be converted into food for his cattle, but husbanded. We are verging upon grim winter, but none can tell how long it may last, nor how in-

tense and severe it may be. In Europe horses are fed in ordinary years upon potatoes, carrots, parsnips and ruta бага, and perform their labour well upon such feed—there they are cooked, and mixed with a slight sprinkling of bean or pea meal,—and why could not a similar method of feeding our farm horses be introduced, substituting chop-rye or corn-meal for the bean or pea-meal of England. Such a mode of feeding would enable the farmer to dispose of much more of his grain than he now does, and we doubt not, from the cooling nature of the roots named, that the general health of the animals would be promoted.

Transplanting Trees—This is probably the best month for planting out young fruit trees of almost every kind, and those who design to set out new orchards or, to increase their old ones should go to work at once and do the good deed as soon as possible, for the earlier they are put in the ground the greater reliance may be placed upon their living.

Ornamental Trees should now be set out, and no farmer who is without a goodly number around his house should be longer without them—they beautify and adorn his dwelling, and are healthful in their effects.

FALL PLOUGHING.—As soon as your seedling is completed, your crops carefully put away, and your horses and hands at command, plough up all your stiff clayed lands that you intend for spring crops. By so doing you will gain much in *time* and in the *quality* of your land in the spring.

Should any of your fields be infested with garlic, you may clean them by ploughing three or four times in the course of the winter, and exposing the roots of the pest to the alternate action of frost, of freezing, and thawing.

We would advise you to examine your fences, repair those that require it, and where necessary put up new ones.

If you have not a shed for your cattle, put one up and let it open upon a southern exposure; for you may rest assured that every animal is the better of being kept dry during winter.

IN THE KITCHEN GARDEN.

If you were so provident as to sow Early York or any of the other varieties of early Cabbages, you should lose no time in putting them out.

Gooseberries, currants and raspberries should now be transplanted.

Cover your lettuce and strawberry borders and beds, so as to shelter them from severe frosts without pressing too heavily on the plants.

In short do every thing that should be done,

not forgetting that, if you have not previously done so, your asparagus 'beds must have a dressing to enable them to withstand the winter and send up luxuriant plants in the spring.

IN THE FLOWER GARDEN.

If you have not already taken up your *Dahlias*, tuberose, tigridas and amarylis, do so without further delay, as a day or two of delay may destroy them—they should be dried, deprived of their foliage, and packed away either in dry moss or sand, and placed in a warm cellar, or some other warm place where they will be exempt from frost.

All demi-hardy plants should receive a covering to protect them from the weather.

DARDENNE, Mo. Oct. 10th, 1836.

Messrs. Editors:

In a former communication bearing date sometime in August last, I promised to remit the amount of my yearly subscription to your paper, as soon as I could procure a current note of the proper denomination; I now redeem that promise by inclosing you a \$5 note on the Fayetteville branch U. S. Bank, for which you will give me credit on my subscription account, and forward a receipt.

In the communication above referred to, I dwelt somewhat in detail of the peculiarities of the past season, reaching back as far as November last, together with my forebodings of the future. If that communication should have reached you, this will need no explanation; if however, it should have miscarried, some of the statements contained in this may not be understood. From the date of that communication nearly up to the present time, the weather has been of almost a uniformly unfavorable character for the existing state of the crops, it being a series of wet, cool, cloudy weather, exactly calculated to keep back vegetation, and prevent it from maturing. A majority of the corn, in this part of the country at least, continued green and soft until the 4th inst., when we had a most destructive frost—a real freeze—the ground being frozen hard enough in our fields to bear a heavy man, and of course, the corn stalks were frozen completely through and through; on the 5th, a remarkably heavy white frost, and before night it commenced raining, which continued the next day throughout, and part of 7th, by which time the fodder was pretty much bleached and nearly worthless, and if the weather should continue to be wet for sometime yet to come, it will cause the frost bitten corn to rot, but if it should be dry and cool, of which there is now some prospect, that part of the crop which was partially ripe may cure and be worth something. It is proper, however, here to remark, that on the river low grounds, the crop suffered less from the drought of two first summer months, and was consequently more advanced, much of it being pretty well matured, and even on the upland, where neighborhoods were blessed with good showers in the forepart of July, which was the case partially, the crop is not only a tolerably heavy one, but a good deal of it has in a good measure come to maturity.

There will doubtless be great loss sustained in stock during the approaching winter, in despite of every effort that can be made to save it; the hog stock particularly, must, I think, die, throughout the upland country generally: the chances to save horned cattle and horses are better, but not to be rested on with certainty.

Those who are provident and economical will have it in their power to procure bread for their families; but that many families will suffer for the want of that indispensable article, I have no doubt. As yet I cannot even guess at what will be the price of Indian corn: wheat has not reached an alarming price, it being worth \$1.12½; it is, however, very scarce, many farmers having none.

Yours, &c.

JOHN SMITH.

P. S. It should be observed that this has been and still is decidedly the healthiest season that we have had in 16 years past.

J. S.

COMPOSTS, MUD FOR MANURE, &c.

Sir John Sinclair observes, that in making composts it has been ascertained by a number of experiments, that two bushels of unslacked lime are sufficient to each cubic yard of earth of a medium quality, and as eighty cubic yards are sufficient to manure an acre, one hundred and sixty bushels is the quantity required. A less quantity, however, will answer a valuable purpose, and no precise rules are necessary: for a compost without lime, or lime not mixed in compost, is valuable for manure.

Dr. Deane observed that a "layer of mud will be no bad ingredient in a heap of compost. But it should be contiguous to a stratum of lime, if that can be obtained. But where this is wanting, new horse dung is the best substitute to excite a strong fermentation."

The Albany Cultivator asserts, that "composts in which no fermentation takes place, can be of little advantage. There is no volatile matter given off; and no tendency exists to render soluble ligneous or woody matter. Lime operates more powerfully than dung in inducing fermentation in vegetable matter, though it is not prudent to use it in combination with stable dung; I have found by experience that it causes too violent action, and dissipates nearly all the putrifying properties. Composts are particularly adapted to all the family of small grains, and for top dressing grounds; where this latter practice is tolerated, mere earthy matters add nothing to the compost pile; they merely prevent the waste of other materials which compose it. In making composts, therefore, for field use, earth should be preferred which abounds in vegetable matter; and the litter, vegetable refuse, urine, soap suds, ashes, &c., should be added, which are ordinarily wasted, and which form annually a large aggregate on a farm."

The too common practice of spreading barn-yard manure over mowing or meadow land is very wasteful and extravagant. Most people appear to think that they have nothing more to do than to pile on barn-yard manure in great quantities on any soil, and for each and every sort of produce, and their crops and fortunes are made. But the truth is, that the application of unmixed dung to land in tillage is sometimes not merely

useless, but absolutely injurious. We have the assertion of an experienced cultivator that he actually nearly destroyed his grass in a mowing lot, by spreading on his soil in the spring a quantity of fresh dung taken from the pig-sty. "The dung," he says, "was of too hot a nature, and caused the turf to be so much scorched by the sun, that the grass was burnt up." It is true, that fresh dung applied to ploughed land does not often produce that effect. But the manure in that case, by mixing with the soil forms a compost, and the dung is as it were diluted with earth. Still we hear farmers complain in dry seasons, that the dung which they apply to their soil does more harm than good, by increasing the injurious effects of drought. But if it were well mixed before it was applied, with two or three times its bulk of earth, it would preserve against drought instead of increasing it. A plant will no better grow on a muck heap than on a sand heap; and in some cases pure sand would be a better application to increase the fertility of a soil than unmixed dung.

N. E. Farmer.

[From the Maine Farmer.]

DROUGHT, AND NOT THE COLD, THE CAUSE OF FAILURES OF MOST OF THE SMALL CROPS IN 1836.

Mr. Holmes:—There are many who talk of the season of 1836, as being so cold that they have raised little or nothing. Now I am one who believes that if it must be as dry as it has been, the cold has been a blessing in regard to many kinds of crops. The State of Maine has as moist a climate as any other in the Union, perhaps the most so. Its local situation favors us pretty generally in regard to the drought, and yet the two last seasons have been dry, and the season of 1836 very dry. It is a well known fact that insects such as worms and grass-hoppers are much plentier in a dry season than a wet one. The cut-worm always dies by glutony,* and much rain is the destruction of the grass-hopper. Now let us consider the various crops usually raised by us, and see if they have suffered by the cold.

I will acknowledge that Indian corn has suffered by cold, and perhaps late planted potatoes, and a few vines, as the squash, &c., but we will consider other crops separately—and first, wheat.

It is a well known fact that wheat always does best in a comparatively cool and dry season, and accordingly where it was sown in proper season this year there has been a good crop—the only difficulty is there was not enough sown.

Grass is always best in a wet and cool season, and consequently the same bulk is heavier than in a warm one. Hot countries never give good grass or hay. We must go far north or be favored with a cold season to raise the grasses to perfection, sufficiently to support cattle without grain.

Oats are raised in great perfection in the north of Scotland, and always fill best in high northern latitudes or in cold seasons, hence northern oats bring the highest prices in the market, yet this

*There is some doubt in our minds about that—the whole race of them would be extinct if that was the case.

Ed.

year the straw has been small, but the oat is well filled, as I think, for the want of your Scotch mist, or sufficient rain. The potato comes to the greatest perfection in a moist and cool climate—as in Ireland for instance. At the south it is not raised in perfection. Our crops this year have not been abundant, owing, as I think, to the want of wet, and not for the lack of heat. I allow that early frosts have injured some late planted pieces considerably—but to lessen the crop it must be actual frost, and not cool weather without frost. Rye, Peas, and Oats, are all governed by the same laws of nature, and have all been alike injured by the want of rain, and consequently grass-hoppers, instead of the cold weather. Now, Mr. Editor, it is in vain to talk of cold seasons, but you may and ought to attribute the failure or rather the scantiness of our usual crops to the dry weather, and not to the cold, unless you mean to include drought, when you say cold, which is not always the case, for we have all experienced hot and dry weather, which is far more distressing than cold and dry. Let us tell the story as it should be, and not talk so much of cold seasons. I am a believer in Cycles, and that at least once in about nineteen years we may always expect just such seasons as we now have.

A. B.

Oct. 10, 1836.

[From the Maine Farmer.]

ROLLING WHEAT, &c.

Mr. Holmes:—As I have ever been glad to receive any knowledge of the best of branches of Agriculture, I feel in duty bound to give you the result of my experiments. Although I am aware what I am about to communicate is nothing new to many, yet it may be to some.

Last spring I made me a roller, more particularly for the new ground which I seeded last year, which well paid for my trouble. I also rolled a piece of wheat to try the experiment, the land being a sandy loam, this fall when I reaped my wheat, (there being four hands reaping) it was remarked when we came to the edge of that which was not rolled, what difference in the wheat! and none knew the cause but myself. I said this was rolled, and that was not—on examination it was judged that the rolled wheat was worth one-quarter the most, it being thicker on the ground, and mostly ripe, while the unrolled was much thinner and nearly half green, and the other ripe, the land equally good.

The circumstances in this case might be favorable, it being very dry after I rolled my wheat; whereas, had it been very wet, it might have been an injury. I submit this, hoping it may elicit something on the subject from an abler pen.

A LEARNER.

Madison, Oct. 10, 1836.

[From the Maine Farmer.]

WHAT I HAVE LEARNED.

Mr. Holmes:—I have been a farmer in Maine fifty years and upwards. I farmed it as my neighbors did, and supposed I knew enough about farming, having never read any authors or exchanged any ideas on the subject of agriculture, I never once thought of any improvement in the art, except that when I saw any of my

neighbors' cattle very poor and so starved that they would eat much from my dung heap in winter, I was to be sure, satisfied that he did not work it exactly right. Even then I supposed he had better keep a small number of creatures, and not be guilty of the great sin of starving his stock, and thereby actually losing money, paying taxes, and being at the expense of keeping two cows when one well kept would have given more than both of them.

But within the last three years, particularly since your *Maine Farmer* was published, I have read and attended to agricultural more closely, by reading and attending agriculture meetings, Cattle Shows, and hearing others relate their views and experience on the subject. Not a little information have I gained by what your valuable correspondents have brought to view in the *Farmer*, as well as your extracts from other and distant writers, from all of which, and my own reflections, I have learned, and I find others are not behind me, not to depend so much on English hay for our stock in winter, as it may be so cut short by drought and other causes as to render our stock worth nothing in autumn.—Hence we have learned to raise *Ruta Baga* and other roots to aid in carrying our stock through the winter. Fresh meadows have more set by and improved. Even browse has been found useful. I have learned that store swine may be kept as well on turnips as potatoes, and that many more of the former may be raised on a given quantity of land at no considerable more expense, if any. I have learned that tight and warm barns and stables not only save hay best, but in such our stock are more comfortable, and require much less food. I have learned how to make a barn, &c. I have learned that 100 bushels of corn may be raised in a single year on an acre of ground in Maine, which I should have been slow to believe many years ago. I have learned that wheat may be raised on a clover sod, with a light top dressing of plaster or ashes. I have learned that our stock, particularly black cattle, have been much improved in size and value recently, to which I have no doubt our Cattle Shows have been a great auxiliary. I have learned that the labor on a farm may be carried on to more advantage without alcohol than with it.—Time would fail me to name half the advantages which has accrued to the agricultural interest from the publication of the *Maine Farmer*, and similar papers in the Nation. But I will name one more, and that is, that apples are excellent for fattening swine and other creatures, and for winter keep. And yet I am told that the proprietors of the *Farmer* talk of letting its publication cease for the want of subscribers! they say they are losing money by continuing it! For one I am determined to procure one more subscriber to it if it cost me some trouble. I do hope every subscriber will not rest until he does the same. Can it be that our Farmers, Mechanics, and growers of Stock are so blind to their own interest as to starve those valuable citizens who instituted the paper in question? This I will not as yet believe.

JAY.

Singular Plant.—One of the most curious plants with which we are acquainted, grows in

abundance along the top of Pohatchong Mountain, about a mile and a half in a south west direction from the village of Mansfield. It is commonly called Frost Plant, or Rock Rose, but we have forgotten its botanical name, as also its class and order to which it belongs. We have never seen it in summer, but at this season of the year its appearance is that of a small weed about a foot in height and somewhat resembling the Wild Indigo, both in the form of its branches and of the dead leaves which remain upon it. During the frosty nights of autumn two leaves of ice spring from opposite sides of the stem near the surface of the ground, which are generally melted off during the day and again renewed at night. These ice leaves are of the lenceolar form, three or four inches long, one half or three quarters of an inch broad, and half a line in thickness. Perhaps the best idea of those singular formations may be obtained by imagining the appearance of two petals of the White Lily fastened by their extremities on opposite sides of a slender stem, as they are about the same shape and size and curved in the same graceful manner. They are formed of white transparent ice, straitened lengthwise and much resembling in appearance the little ice columns which during frosty weather are frequently observed in ploughed fields where the soil is wet and gravelly. It is many years since we came across this curious plant while hunting on the mountain, and have never since had an opportunity of examining it, nor have we ever been able to meet with a single person who had observed it.

[*Belvidere (N. J.) Apollo.*]

SELECT CORN SEED.

It is highly important that the seed corn should be selected from the best samples which can be obtained. The reason why this practice is recommended is this: the offspring of vegetables as well as animals will, in a great measure partake of the good or bad qualities of the parent.—The following directions on this subject are from the pen of Joseph Cooper, Esq., of Brunswick, New Jersey.

"When the first ears are ripe enough for seed, gather a sufficient quantity for early corn or replanting; and at the time you would wish your corn to be ripe generally, gather a sufficient quantity for planting the next year, having a particular care to take it from the stalks which are large at bottom, of a regular taper, not over tall, the ears set low, and containing the greatest number of good sizeable ears of the best quality; let it dry speedily; and from the corn gathered as last described, plant your main crop, and if any hills should be missing, replant from that which was first gathered, which will cause the crop to ripen more regularly than common, which is a great benefit.—The above mentioned plan I have practised many years and am satisfied it has increased the quality of my crops beyond what any person would imagine who had not tried the experiment."

Dr. Dean observed that "some recommend gathering seed corn before the time of harvest, being the ears that first ripen. But I think it would be better to mark them and let them remain on the stalks until they become sapless.—Whenever they are taken in, they should be hung

up by the husks, in a dry place, secure from early frost; and they will be so hardened as to be in no danger from the frost in winter."

From the Genessee Farmer.

THE SEASON.

Extract of a letter from one of our correspondents in Onondaga county, dated Sept. 28.

"The frost of the fifth inst. killed all the vines, a few potatoes excepted, and injured the corn a good deal, but as the stalk was not killed, or the ear frozen, I do not think it much more injurious than topping at the early season would have been. It has evidently much improved in hardness since, but will be a poor substitute for good bright corn. Buckwheat was so far advanced, that no more than a third, if so much was hurt at all.—There has evidently been quite a panic on the subject of bread stuffs, and the usual plenty cannot be expected—still, there will be bread enough, and with industry and economy none need fear starvation.

"P. S. I have opened my letter to state, that at daylight this morning the snow was five inches deep, and had evidently settled some. Wind northwardly, and at present foggy. The trees in full foliage, present a most singular spectacle.—Verily the season as a whole is unprecedented."

A letter of the same date from another correspondent in the same county, says:

"The corn crop in this vicinity, (county of Unondaga,) will prove to be one of the most inferior order. The season throughout was ungenial to its growth,—the drought injured it, and the untimely frost of Sept. 5th came very near giving it a death blow. I cannot suppose its produce in value will be equal to more than a fourth of what might under favorable circumstances, have been expected. I make nearly the same estimate in regard to the wheat crop."

SMALL FARMS.

There is a great mistake amongst farmers—And that is this, they covet too much land. Almost all our farms, are probably from four to ten times too large. A farmer never feels that he has got enough. He adds field to field, does not half subdue or manure what he has got, and still wants more. One of the most productive and profitable farms I ever saw contained but fourteen acres. It was very much subdued, improved and manured; and the owner was called a very thrifty, if not a rich man, while his neighbor who skims over three hundred acres, and works full as hard, grows poor. By proper management I am satisfied every acre of land which is fit to raise corn upon can be made to yield one hundred bushels to the acre. Is it not better to put the labor and care upon it, and raise one hundred bushels, than to spread the same over four acres, and thus drive away three or four of your sons to the west? As things now are, what is the process? I will tell you. A man owns one of our large farms. It is paid for. He raises up a large family. The girls are married off, and he gives each one her portion. He himself dies, and his farm falls to his five sons. One of his five sons takes the farm, and agrees to pay the other sons the shares. They go off to the west and return no more. He undertakes by

economy and industry to keep it and send a fourth of its value to the west. By and by, he finds he can't do it as fast as he agreed to. He goes to the Life Insurance Company, or some where else, mortgages his farm, and starts anew to pay for it. All his life he toils, pays interest, thinks the farmer has a very hard row to hoe, and it is not till near the close of his life that he gets free from debt. When he dies the same process has to be gone over again, and every generation that goes, we send four fifths of the value of our lands after them. Now this is poor policy; and I wonder that our farms are in any tolerable condition; for their worth many times over has been sent away to the west. If, instead of this our farmers would divide up their farms and make each acre yield all it can, our towns would not have the appearance of age and decay; which many of them have.

I have noticed that men as they grow old seem to want more land; and seldom do you find a man who feels he has enough. I know they talk of the fertility of the west, and the beautiful land to be found there. And I know too, that a young man going out there, if he does not die under it, will in a few years become thrifty.—And why? The process is easily described. He goes into the wilderness, purchases the land, lives in his log cabin, sleeps on the floor, or more likely on the ground, eats upon a slab pinned up into the logs, and it would be wonderful indeed if he did not gain property. And so would he here. Let a young man take the poorest farm you can name, and labor on it as hard, and live just as he does at the west for fifteen years and he will be rich here. It is not so much the land that makes the difference, as the manner of living between the west and the east. I was struck while riding in the stage in listening to the conversation between two farmers, the one from Illinois, and the other from the state of Maine.—The western man was describing the fertility of the soil, contrasting it with New England. 'Why how much corn can you raise to the acre?' says our farmer from Maine. 'I can raise all of 70 bushels with ease.' 'And how much do you get a bushel?' 'Nine pence a bushel at my door.' 'Well,' says the Maine farmer, 'I can raise 300 bushels of potatoes on my land, and get twenty cents a bushel at my door.' 'Ay, you have to dig them.' 'True, and don't you have to pick and shell your corn, and after all get but twelve and a half cents per bushel, and only seventy bushels on an acre.' I repeat it, with the same economy and the same industry, a young farmer here can get rich as easy as at the west. Whether they will practice economy is more than I can say. But let the fashion once prevail of having smaller farms and having them better cultivated and you will be surrounded by your own sons, instead of large landholders, and a floating population, who hire themselves to cultivate it, and who have no land.—*Maine Farmer.*

Potato Beer.—The Germans will now manufacture their favorite beverage in greater abundance and at a cheaper rate than ever. M. Balling, Professor of Chemistry at Prague, has succeeded in making an excellent Beer from Potatoes. It is the color of wine, and is very strong, and very agreeable to the taste.

ESSEX AGRICULTURAL SOCIETY.

The Salem Gazette gives the following sketch of the remarks of Gov. Everett at the Essex Cattle show.

After the report of the Committee of Arrangements had been read, Gov. Everett rose and made his acknowledgments to the Committee for the manner in which they had alluded to the circumstance of his being present. He expressed his gratification at the exhibition of the day; and his confidence that the bounty of the State was beneficially applied by the Essex Agricultural Society. He stated that the wish had been expressed that he should address the audience. He felt that in complying with the request, he stepped beyond the line of usage on such occasions, but he trusted the responsibility of his doing so would be considered as resting with the Committee, by whom the wish had been expressed.

The Governor added, that he felt additional embarrassment in following the orator, who in his very able and interesting discourse, had anticipated many of the general remarks appropriate to such an occasion. His only effort could now be, to subjoin a few observations, so simple as to present themselves without research, and he hoped important enough to bear a repetition, should it happen, as was very probable, that they had been already made by the orator of the day.

After some remarks on the nature and objects of cattle-shows, and their beneficial influence on the state of the husbandry of this part of the country, Governor Everett proceeded substantially as follows:

The benefit which has accrued to our farmers from these exhibitions cannot be estimated in dollars and cents, or measured by the figures employed to state an increase of agricultural products. A few more tons of hay from your meadows; a few more bushels of corn or potatoes from your tilled lands; a better stock of animals for the dairy, the fold, or the pen, would add something, it is true, to the public and private wealth of the community; but if nothing farther came of it, it would be a matter, in which neither the patriot nor the Christian could take a deep interest.

But when we consider, that the class of husbandmen is numerically the largest in the community; and that in their condition it has been found, in the experience of the whole world, that the social, political, and moral characters of countries mainly depends, it follows as self-evident, that whatever improves the situation of the farmer, feeds the life-springs of the national character. In proportion as our husbandmen prosper, they not only enjoy themselves a larger portion of the blessings of life, but society is kept in a healthy state, and they are enabled to make ampler provisions for the education and establishment of their children and thus leave behind them a posterity competent not only to preserve and assert, but to augment their heritage.

It will accordingly be found, that the great differences in the political condition of different countries coincide directly with the different tenures on which the land is held and cultivated. It is not that in one country the Government is administered by an elective President; in another by a limited monarch; in another by an absolute despot. These things are not unimportant; because forms have a tendency to draw the substance af-

ter them. But a far more important question, in deciding the political condition of different countries is, *how is the land held?* The orator has told us what is the case in many parts of Europe; but there are countries, where the land,—the whole of it,—is claimed to be the property of an absolute despot, rather a chief of brigands than a sovereign,—who once or twice a year sends out his armed hordes to scour the territory: to sweep together, without the shadow of law or pretence of right, whatever they can lay their hands on; leaving the wretched peasant little else than what he actually grasps with his teeth. Such is the system introduced into some parts of Hindostan by their Mahometan conquerors, and it has had the effect of breaking down the civilization of countries once refined, learned, wealthy, and prosperous, into a condition very little better than that of the North American savage. Contrast this with the system on which our lands are held and occupied, in pursuance of which, as a general rule, it is divided into small farms, the property of those who till them, who have every inducement and facility to better their condition, and who feel themselves on an equality with their fellow citizens in every other pursuit. It is plain, that over such a population, no government could exist, but one like that beneath which we live, in which the people are the direct source of power. Where this is the case, it is equally plain, that whatever improves and raises the condition of husbandmen, tends directly to sustain and fortify the social fabric.

A very celebrated ancient poet exclaimed, "Oh too happy farmers, did you but know your blessings." If this could be said of the farmers of Italy, at the close of the civil wars,—subjects of an absolute prince, and a part of them only the owners of the land they tilled, it may well be repeated of the husbandmen of New England, the proprietors of a soil which furnishes a competence of all the good things of life; and the possession of an amount of blessings never surpassed, if ever equalled. Not among the least of these privileges, is the rich birthright of patriotic recollections which has come down to us from our fathers; and of which no portion of our country has more to boast, than the ancient county of Essex. It is no mere compliment, sir;—the county of Essex is a distinguished part of the State. It would be easy, within the limits of this single county, to find, in the history of other times, bright examples of all the traits of character and conduct, which promote the prosperity and honor of nations in peace and in war. From the early contests with the Indians and French,—from the time when the "Flower of Essex" fell at "Bloody Brook,"—down to the close of the revolution, the fathers and forefathers of those I have the honor to address, contributed a full share of the counsel and treasure, the valor and blood by which the cause of the country was directed, sustained, and carried through triumphant.

Need I go beyond the limits of the town of Danvers? Is it not enough to recall the time, not beyond the memory I am sure of some whom I see before me, when a regiment of royal troops was here encamped, a sort of praetorian band to guard the residence of the Royal Governor? Need I do more than to remind you of the morning of the 19th of April, 1775, when your sires, at the

sound of the bell of yonder church, hastened together, a portion of them under the command of your venerable fellow-citizen near me, (General Gideon Foster,) and rushed rather than marched to the field of danger, sixteen miles in four hours, flying into the jaws of death, as rapidly as fear commonly lends men wings to fly from it; and contributing,—this single town,—this one little town,—oh, prodigality of noble blood,—one-sixth of the entire loss of that eventful day. Need I, my friends, for the most touching recollections, go beyond the walls of yonder ancient church, consecrated, as it was, by the strange spectacle, (at the memory of which your tears were called forth afresh, on last year's return of the great anniversary,)—the sight of four of your brave sons wrapped in their bloody shrouds,—the honorable wounds which they had received in their country's cause still freshly flowing? Could I before this audience on such a theme, be wholly mute, would not the gray hairs of the veteran leader of that heroic band, who is now before me, (General Foster) rebuke my silence, and put a tongue in every echo of this building, which would cry out and shame me.

Yes, fellow citizens, if anything could make your native land your homes, your firesides more dear to you, it must be these recollections of the precious blood by which they were redeemed. If anything was wanting to inspire you with passionate attachment to the blessings you enjoy, it would be the thought of the inestimable price at which they were purchased.

Nor let us forget, if we have a patriotic ancestry to be proud of,—and if we have privileges to enjoy,—we have also incumbent duties to perform. The great principles of republican liberty are exposed to danger in peace as well as in war. Prosperity not less than trial may sap the foundation of the social fabric; and there is at all times less danger from a foreign foe, than from party passion, individual selfishness, and general apathy.

It will not, of course, be expected of me to enlarge upon the duties which devolve upon our husbandmen with a view to guard against these dangers and perpetuate our institutions in their purity. I can but glance at the topic. But I may say, that the first and most important duty of the husbandman is to endeavor to preserve, and if it may be to strengthen, the broad foundation laid by our fathers, in a deep religious principle.—Surely there is no class of the community, whose daily pursuits ought to furnish greater nourishment to the sense of religious things. The reflecting mind it is true, beholds traces of a higher wisdom and goodness in every step of every walk of life; but the husbandman, who drops a seemingly lifeless seed into the cold damp earth,—there in great part to decay,—who sees the vital germ in a few days pierce the clod,—rise into the air,—drink the sun's rays and the dews of heaven,—shoot upward and expand,—array itself in glories beyond the royal vesture of Solomon,—extract from the same common earth and air a thousand varieties of the green of the leaf,—the rainbow hues of the petals, the juicy or the solid substances of the fruit which is to form the food of man and his dependent animals—I say the intelligent husbandman who beholds this, seems to step behind the veil, which conceals the myste-

ries of creative power, and sit down, (if I dare so to speak) in the laboratory of Omnipotence.

Connected with the cultivation of the religious principle, and the natural fruit of it, we look to our husbandmen for a high moral sense. The worst feature in the degradation of many foreign countries, is the moral condition of those who till the soil, showing itself in the extreme of intemperance, and the kindred vices. No man can fully understand this, who has not witnessed it. In the general moral character of our population, we are warranted in saying, that it might serve as an example to the world. I do not think that out of New England, (and I repeat only a remark, which, I have heard several times from persons coming from other parts of the country,) you could assemble a concourse giving so much proof of sobriety, thrift, and industry, as is brought together in this town to-day, and might be assembled, on a similar occasion, in any town in Massachusetts. We look to our husbandmen, by precept and example, to sustain, and if possible elevate this sound state of morals in the community.

Lastly, that I may say a single word on a subject, on which the orator has preceded me—it is a great and just boast of the pilgrims and their descendants, that they made early and ample provisions for education. Farmers of Essex, hold fast to that boast. I had rather for the appearance, if I must choose between them, see the country dotted all over, at its cross-roads, with its plain little village school-houses, than have the high places of a few large towns crowned with the most splendid fabrics of Grecian and Roman art. I had rather for the strength and defence of the country,—if I must choose between them,—see the roads that lead to those school-houses thronged with the children of both sexes, saluting the traveller as he passes, in the good old New England way, with their little courtesy or nod, than gaze on regiments of mercenary troops parading upon the ramparts of impregnable fortresses. Aye, for the honor of the thing, I had rather have it said of me, that I was, by choice, the humblest citizen of the state, making the best provision for the education of all its children, and that I had the heart to appreciate this blessing, than sit on a throne of ivory and gold, the monarch of an empire on which the sun never sets. Husbandmen, sow your seed of instruction in your sons' and daughters' minds. It will grow up and bear fruit, though the driving storm scatter the blossoms of spring, or untimely frost overtake the hopes of autumn. Plant the germ of truth in the infant understandings of your children; save, stint, spare, scrape,—do any thing but steal,—in order to nourish that growth;—and it is little,—nothing to say, that it will flourish when your grave-stones, crumbled into dust, shall mingle with the dust they covered;—it will flourish, when that over-arched heaven shall pass away like a scroll, and the eternal sun, which lightens it shall set in blood!

Honey.—In passing through the garden employed by the American Institute, our attention was directed to some boxes of honey, of a clear, white and beautiful transparent appearance, such as has been seldom seen in the New York market. It is presented by Messrs. Wilcox & Cone, of

West Bloomfield, Ontario county. One of the firm has furnished us with the following statement.—

"Last spring we had not more than 220 swarms, this fall we had over 420; nearly all the young swarms are good to winter over. We have taken from our bees 700 lbs. of box or cap honey; in addition to this we furnished all in the vicinity where we live, with boxes, showing them how to manage, promising to buy all the honey that was built in them. This, added to our own, made 5,641 lbs. All this was taken away without destroying a single swarm of bees. Near seven eighths of this honey was of the white, such as was exhibited to-day; it arrived in New York market on the 6th of September; nearly two thirds of it is already sold. We have adopted this plan to make our bees profitable, and not to destroy an insect that is such an example of industry."—*N. Y. Gaz.*

From the Maine Recorder.

MANURE.

It has been rightly said, that "the manure-heap is the farmers' gold mine," therefore he should constantly endeavor to increase it. This important article is not sufficiently attended to, by farmers in general, although it is the principal source of their wealth; without it, after all their care and labor, they can have but miserable crops.

The barn yard is the principal reservoir on which the farmer can depend for his manure, therefore he should construct it so as to retain its contents. It should neither be level nor sloping outwards, but all parts should descend toward the centre, so as to prevent all rich liquid matters from finding their way out, and wasting their fertilizing properties on ground that does not require them.

If nature has not formed such a place it should be done by art. In order to increase the quantity of manure, the farmer should annually deposit in his yard all the coarse grass, brakes, weeds, pumpkin vines and potatoe tops which can be conveniently collected.

Brakes are particularly useful, on account of their being so full of salts; they should be cut when green and laid in the yard to putrify and mix with the dung.

Leaves are also recommended; they may be gathered in large quantities at this season of the year, and deposited in some convenient place, and used as a litter for cattle and hogs, during the winter; leaves mixed with dung in this way, make the best manure for potatoes. Still farther to augment the mass, swamp earth may be added to an advantage. These materials will absorb the liquid of the yard.

Cattle should be confined to the yard, continually during the foddering season; the practice of allowing cattle to go to a distance to water, is attended with great loss of manure besides innumerable accidents, to which they are exposed by going without a driver, as they commonly do.

Every yard should be supplied with water from an aqueduct or well; the former is preferable, as the water is brought from a distance and consequently is not impregnated with the excrements of the cattle.

I should like to say much more on the subject, but time will not allow of it at present.

A CONSTANT OBSERVER.

ECONOMY OF FODDER.

Let us compare the value of hay with other crops for the feeding of stock. An acre of hay yields one ton and a half of vegetable food; an acre of carrots or Swedish turnips will yield from one to twenty tons, say fifteen tons, which is by no means an exaggerated estimate. Crops at the rate of twenty-five tons of carrots and twenty-two of Swedish turnips to the acre, have been raised among us, and much larger crops than these are upon record.

By an experiment, it has been ascertained that three working horses fifteen and a half hands high consumed at the rate of two hundred and twenty-four pounds of hay per week, or five tons one thousand five hundred and forty-eight pounds of hay per year, besides twelve gallons of oats each per week, or seventy-eight bushels by the year. An unworked horse consumed at the rate of four and one quarter tons of hay by the year. The produce therefore of nearly six acres of land in this mode of feeding, is necessary to support a working horse by the year; but half an acre of carrots at 600 bushels to the acre with the addition of chopped straw, will, while the season for their use lasts, do it as well if not better.—These things do not admit of doubt; they have been subjects of accurate trial.

It is believed, that the value of a bushel of Indian corn in straw and meal, will keep a healthy horse in good condition for work a week. An acre of Indian corn, which yields 60 bushels, will be ample for the support of a horse through the year. Now it is for the farmer to consider, whether it be better to maintain his horse upon the produce of half an acre of carrots, which can be cultivated at an expense not greatly exceeding the expense of half an acre of potatoes; or upon half an acre of ruta бага which can be raised as a second crop at less expense than potatoes; or upon the grain produce of an acre of Indian corn; or, on the other hand, upon the produce of six acres in hay and grain, for six acres will hardly do more than to yield nearly six tons of hay and seventy eight bushels of oats.—The same economy might be as successfully introduced into the feeding of our neat cattle. I have known a yoke of oxen engaged in the labor of a farm, to be kept three months in winter, in good working condition, upon one bushel of Indian meal and about 25 cents worth of straw per week; and my own team has ever been in better condition both for appearance and labor, than when fed wholly upon a liberal supply of ruta бага and the coarsest fodder. But it has been ascertained by accurate measurement, that an unworked ox put up on good old hay, consumed at the rate of \$3lbs. per day, or 231lbs. per week, which is upwards of 6 tons per year, of 2,000lbs. per ton. There must then be a great saving between feeding in the way referred to, or upon English hay; and English hay alone, in any quantity without grain or vegetables, is not sufficient for any hard working animal.—*Colman's Address.*

Cultivation of the Fig in New England.—Yankee ingenuity can conquer any thing. Even the sterile soil and inhospitable climate of New England, seem likely to be converted by their

irrepressible enterprise, and prolific invention, into the paradise of the tropics. They will have their silk manufactories, and their beet sugar, and Mr. Eliphalet Averill, of Hartford, is now about to introduce the cultivation of the fig. He has discovered a method of preserving the tree and bringing the fruit to maturity. When the figs are half or two thirds grown, they cease growing and present every appearance of not coming to maturity, when to facilitate their growth a drop of olive oil is put upon their blossom ends, which in eight or ten days produces most extraordinary effect in ripening and making them delicious—By pursuing this method, two crops of nice figs it is said, can be raised in New England in good seasons; in Georgia three are obtained.—*N. Y. Star.*

[The plan of putting oil on the fig to ripen it is as old as the culture of this luscious fruit itself. *Ed. Farmer and Gardener.*]

GEOLOGICAL DEFINITIONS.

The Primitive Earths, are four: clay, sand, lime and magnesia.

Clay, is called by geologists, alumina, alumine, or argillaceous earth.

Sand, is called silex, silica, silicious earth, or earth of flints.

Lime, as it exists in the soil, is commonly called calcareous earth. The term calcareous is not properly applied to any soil, unless it will effervesce with acids.

Each of these earths answer a determinate and specific purpose in the economy and growth of plants; and the perfection of soil lies in a mixture of the whole.

Basis of the whole.—The primitive earths which enter into its composition.

Vegetable Matter.—All vegetable substances in a decaying or rotting state.

Animal Matter.—All animal substances in a putrifying state.

Organic Matter.—A term applied both to animal and vegetable substances in a putrifying state.

Vegetable Mould.—The earthly remains of vegetable substances which have either grown and decayed on the soil, or have been conveyed thither in the progress of cultivation.

Loam, is a combination of vegetable mould with the primitive earths.

Marl, is a substance consisting of lime, with a small portion of clay, and sometimes of peat, with a marine sand and animal remains. It is useful as a manure, and is distinguished by *shell, clay and stone marl.*—*Genesee Farmer.*

SEED WHEAT, GRASS SEEDS, &c.

75 bushels Red Bearded SEED WHEAT, perfectly clean and heavy—130 bushels prime ORCHARD GRASS SEED, growth 1836, common red and imported sorts—Timothy, Herd's Grass, Millet, Buckwheat, Trefoil, White Clover, Lucerne, &c.

And we are now receiving an extensive assortment of GARDEN SEEDS, of the present year's growth, warranted of superior quality, among which is 70 lbs. French Sugar Beet Seed, and 50lbs. White Italian Mulberry, (*Morus Alba.*) For sale by

ROBT. SINCLAIR, Jr. & CO.
Light, near Pratt St. whf.

nov 1

TWO POINTER PUPS.

FOR SALE, 2 handsome pointer pups, the one 4 the other 2 months old, and both warranted to be of pure strain. The price of the first named is \$10, that of the latter, \$5.

oct 18

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only *proved Jacks*, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 13½ hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address

I. I. HITCHCOCK,
Agricultural Agent, No. 5 South Fifth st. Philadelphia.
Philadelphia, Oct. 13th, 1836. oc 25

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire.

Price, \$500.

All letters upon the subject must be post paid.
oct 18

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.
aug 23 Light, near Pratt street wharf.

NEW CHINESE MULBERRY,
Or *Morus Multicaulis* Trees and Cuttings, for sale.

THE SUBSCRIBER has a large stock of these trees, very thrifty well rooted plants, 2 to 5 feet high, raised in this country, under his superintendence, which would be sold according to size, on pleasing terms, and carefully packed and forwarded to order to any section of our country.

And from six years experiments in cultivating this tree, he is decidedly of opinion, that there is no tree so well calculated to raise silk. Any information relative to its culture, will be furnished to purchasers if requested.—Also the Italian white mulberry 2 to 3 feet, very cheap.

ROBERT SINCLAIR,
Clairmont Nursery, near Baltimore. se 20

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener.

an 23

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	6 50	7 50
CORN, yellow,.....	bushel.	90	93
White,.....	"	87	90
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	—
Do. do. baker's,.....	"	—	—
Do. do. Superfine,.....	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	—
" " wagon price,.....	"	9 50	—
City Mills, extra,.....	"	—	9 50
Do.	"	9 00	9 25
Susquehanna,.....	"	—	9 25
Rye,.....	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. in bbls.	bbl.	—	4 75
GRASS SEEDS, red Clover,.....	bushel.	7 00	7 50
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	2 00	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" " water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 50	8 75
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	47	50
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	5 00
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	110	120
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrapery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,...	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,...	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	2 00	2 10
Red, best,.....	"	1 90	2 00
inferior,.....	"	1 40	1 60
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhds.....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	washed, unwash	55 to 68	30 32
Full Merino,.....	"	48 55	28 30
Three fourths Merino,.....	"	45 48	26 28
One half do.....	"	40 45	26 28
Common & one fourth Meri.	"	36 40	26 28
Pulled,.....	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	14	—
Middlings,.... do.....	"	—	14
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	—
Roll,.....	"	20	28
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"	2 12	2 25
EGGS,.....	dozen.	20	25
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 12	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	5 00
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	Farmers Bank of Virginia,.....
Branch at Baltimore,.....	do	Bank of Virginia,.....
Other Branches,.....	do	Branch at Fredericksburg do
MARYLAND.		Petersburg,.....
Banks in Baltimore,.....	par	Norfolk,.....
Hagerstown,.....	1/2	Winchester,.....
Frederick,.....	do	Lynchburg,.....
Westminster,.....	do	Danville,.....
Farmers' Bank of Mary'd, do	do	Bank of the Valley,.....
Do. payable at Easton,.....	do	Branch at Romney,.... 1
Salisbury,..... 5 per ct. dis.		Do. Charlestown,.... do
Cumberland,..... 1		Do. Leesburg,..... do
Millington,..... do		Wheeling Banks,.... 2a2 1/2
DISTRICT.		Ohio Banks, generally 3a3 1/2
Washington,.....		New Jersey Banks gen. 1 1/2a2
Georgetown,.....	Banks, 1/2	New York City,..... 1a
Alexandria,.....		New York State,.... 2 1/2a3
PENNSYLVANIA.		Massachusetts,..... 2a2 1/2
Philadelphia,..... 1a		Connecticut,..... 2a2 1/2
Chambersburg,..... 1/2		New Hampshire,.... 2a2 1/2
Gittsburg,..... do		Maine,..... 2a2 1/2
Pittsburg,..... 2a2 1/2		Rhode Island,..... 2a2 1/2
York,..... 1a		North Carolina,.... 3a3 1/2
Other Pennsylvania Bks. 1 1/2a2		South Carolina,.... 3a3 1/2
Delaware [under \$5].... 3a4		Georgia,..... 3 1/2a4
Do. [over 5]..... 1a2 1/2		New Orleans,..... 6
Michigan Banks,..... 5a		
Canadian do..... 5a		

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltimore

sep 27

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid oc 1

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thin Rind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep..

4t.

FOR SALE,

Upwards of 200,000 silk-worm eggs.

Address J. A. S. Patriot Office, Baltimore, Md.

Sep. 27.

3t.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1/2 to 4 feet—the 2 feet and 1 1/2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.

se 27

ROBERT SINCLAIR.

CHINESE MULBERRY TREES AND CUTTINGS.

THE best varieties of CHINESE MULBERRY, (Morus Multicaulis) from France, Italy and China, of one, two and three years' growth, may be had in large or small quantities, from S. WHITMARSH's extensive collection, and forwarded to any part of the United States, according to order, with directions for propagation.

It is confidently believed, that the present mode of culture adopted by us, will prove a certain and secure protection against the severity of winter, and the best method by which to increase the foliage and multiply the number of trees.

All orders directed to the subscriber, will receive immediate and faithful attention.

In behalf of S. WHITMARSH,

DANIEL STEBBINS.

Northampton, Sept. 7.—20

3t.

POINTERS AND MASTIFFS.

TEN Pointer pups about 4 months old, of good strain —warranted genuine.

ALSO—4 Mastiff pups, considered above all others the most faithful watch dogs.

The above pups can be procured by any persons wanting either of them, by application to the editor of the Farmer and Gardener, Baltimore.

All applications by letter, must be post paid.

3t

sep 20

CONTENTS OF THIS NUMBER.

Notice to "a subscriber"—deep ploughing—beet sugar in England—work for November—Mr. Smith's letter on the crops, weather, &c. in Missouri—composts, mud for manure, &c.—drought the cause of most of the failures of the small crops in 1836—rolling wheat—what is to be learned from a newspaper—singular plant—select corn seed—the season, in Onondago, N. Y.—small farms—potato beer—Gov. Evorett's address at the Essex (Mass.) cattle show—honey—manure—economy of fodder—cultivation of the fig in N. England—geological definitions—Prices Current—Advertisements.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 28.

BALTIMORE, MD. NOVEMBER 8, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, NOV. 8, 1836.

PROVENDER FOR CATTLE.

We know not how we can better occupy a column than by admonishing our brother farmers of the necessity of carefully husbanding their provender for the coming winter; for, from all accounts which reach us from every quarter of our immense country a great scarcity prevails, and as the winter may be said to have set in early, a long period of feeding may be anticipated. And while we recommend economy, we would respectfully suggest the propriety of cutting all long feed. The labor and expense of reducing hay, fodder and straw for general feeding, when compared with the great saving, should not be considered in any other than that of just economy; for, without question, fully one-third less will answer when so fed out. Let racks be made as they may, and let horses and cattle go to their eating with what appetites they may, it is an incontrovertible fact that at least one-third of the provender given them is thus wasted.

If we were called upon to express an opinion upon the subject, we would say—that neither oats nor corn should be given to horses, cattle or hogs without its being first reduced to something like a flour-state; for by such reduction one-third less in weight would answer, and to those who feed with corn we would observe, that the cob as well as the kernel should be passed through a crusher. By this process fully one-half would be saved if the mass be submitted to the operation of steaming.

The Chinese Mulberry, and two crops of Worms the same season, in Ohio.—Mr. Westbrook, of Muskingum county, Ohio, has found that the Chinese Mulberry grows with the greatest luxuriance in that soil, and has this season raised two crops of worms, and two of cocoons in succession.

The Hampshire Republican gives the following comparative statement of prices in Massachusetts in the years 1796 and 1836, a period of 40 years.

FORTY YEARS DIFFERENCE IN PRICES.

	1796	1836
Wheat, per bushel,	\$0.67	\$1.75 to 2.50
Rye, “	0.40 a 0.50	1.12 to 1.25
Corn, “	0.40 a 0.42	1.00 to 1.25
Oats, “	0.20 a 0.25	0.50 to 0.62
Butter, per lb.	0.08	0.17 to 0.20
Cheese, “	0.04 a 0.06	0.08 to 0.12
Lard, “	0.08	0.14 to 0.16
Pork, shear, “	0.08	0.15 to 0.17
Day's work in summer,	0.50	1.00 to 1.25
Six months, “ \$40.00 to 60.00		84.00 to 108.00
Six “ winter, 24.00		60.00 to 72.00
Six mos. School \$0.00		60.00 to 120.00
Rainbow Land 80.00 to 100.00		100.00 to 150.00
Plough Land, 30.00 to 50.00		80.00 to 150.00
Wood Land, 2.50 to 4.00		18.00 to 40.00

MANURES.

Manure is the wealth of the farmer. This proposition cannot be too often repeated and enforced, for in the full belief of this axiom, and a corresponding practice, the success of the farmer mainly depends. Manure, wherever it may be found on the farm, is beneficial, but it never does all the good it might, unless it is properly prepared and judiciously applied. Most farmers are content if they are able to empty their yards once in two or three years of the accumulated piles of straw and cattle manure, at a loss of nearly one half its efficient qualities; and the exuberant fertility of our western lands has hitherto in part justified this careless management of this important item in husbandry. Compost, or a mixture of earth with common manure, kept in a pile until the union and decomposition is perfect, is undoubtedly the best application that can be made to land. The efficient power is also greatly increased, as the earth's employed in making the pile absorb the gases produced by the decomposition of the vegetable and animal matter, and become nearly of equal value. The mud which accumulates in swamps and low lands, where it lies useless and unproductive, may in this manner be converted into one of the most active restorers of exhausted soils. The yarding of cattle is to be preferred when practicable, to suffering them to run at large, and the additional quantity of manure made by stabling will independent of the saving in fodder, nearly pay the expense of erecting stables for their accommodation.

Common sense would teach a farmer, that the sooner manure, when applied to the soil, can be put under the surface, the better the effect will

be, and the less of its fertilizing qualities will be lost. Spread over the surface it certainly does good, but in a much less degree than when put under the surface. To this philosophical application of manure, much of the success in the improved system of farming is owing, as it necessarily involves a rotation of crops, two principles of the first importance in ameliorating the soil, and advancing its products. Formerly the most of the manure was applied to the meadow lands, scattered over their surface, and these were allowed to remain in grass so long, that continued attention was required to produce ordinary burdens. It was erroneously supposed that the ploughing of lands intended for mowing would be destructive of grass crops, and their renewal as at present practised was not dreamed of. Now, where the soil is not so wet as to forbid it—and the system of draining, leaves few pieces inaccessible to the plough—meadows are subjected to the same system of rotation as the rest of the farm, and when properly managed, no deficiency, either in quality or quantity of hay need be apprehended. Experience here in the application of manure, is in perfect accordance with theory, and shows that when nature is properly understood, the way she points out will be found the most easy and most productive to the agriculturist.

The manner in which manures perform the effects attributed to them, there is reason to believe, is at present very imperfectly understood. That they become accessary in some way to the growth of plants is certain, and the general opinion seems to be that the decomposed matter is taken up by the roots, and again becomes incorporated in the new structure. Is it not possible, however, that the electric or magnetic influence which seems to pervade nature, and the activity of which every new discovery tends more fully to develop, has a more important agency in the growth of plants than has generally been admitted? In the construction of the electric pile it is well known that alternate substances of metallic and animal or vegetable origin are employed, which seems to be precisely the condition in which the manures are the most effective. Vegetation does not succeed in the pure minerals which form the foundation of the various earths, nor will it flourish where the richest, and of course purest, manure alone is employed. Is it not probable then that the mixture of these moistened with water, constructing a true voltaic pile, by exciting the secretory powers of the plant, gives it vitality, and the powers of aggregation and growth. We throw out these hints for the examination of the curious, merely adding, that in whatever way they operate, manures are indispensable to the success of the farmer.—*Geneva Farmer.*

[From the Maine Farmer.]

DAIRYING.

The profit of a Dairy depends as much on the choice of the Cows, as their being well fed, and on the proper management of the milk. It is intended in this No. to aid the dairy farmer in this selection.

Before offering two extracts from English works which give the external marks of good Cows for the Dairy; it is proper to state that the dairy farms in England are supplied with cows by purchase. In England there are farms for the raising of stock, and that furnish the cows for the dairy farms; and farms also for the rearing and fattening of calves for the butcher,—which are supplied with their calves from the dairy farms, at the age of two to four days.

Extract—"For the choice of Cows for dairy Farms.—The Milk, or Dairy Farmer, should constantly choose such Cows as are wide in the horns, thin on the head and neck, dewlap not too pendulous, the carcase deep and flatish, wide (rather pointed) hips, buttocks round and fleshy, legs thin, with short joints, the udder capacious, not fleshy, but extending well backward; the milk rooms large and prominent, and the teats long and large."—*Encyclopedia of Agriculture*.

This communication was made by Dr. Clyne, the most eminent Surgeon in Europe, and was intended as directions to improve the breed of stock in general, and is particularly recommended to the farmers of this country, who raise their own stock, and in what they raise require those qualities, that will answer for labor as well as the dairy. "The external form of domestic animals has been much studied, and the proportions are well ascertained. But the external form is an indication only of an internal structure. The principles of improving it, must therefore be founded on a knowledge of the structure, and use of the internal parts.

The Lungs are of the first importance. It is in their size and soundness, that the strength and health of animals, principally depend. The power of converting food into nourishment is in proportion to their size, and therefore, the animal with the largest lungs, has the greatest aptitude to fatten.

The Chest, according to its external form and size, indicates the size of the lungs. The form of the chest should approach to the figure of a cone, having its apex situated between the shoulders, and its base towards the loins. Its capacity depends on its form more than in the extent of its circumference, for where the girth is equal in two animals, one may have larger lungs than the other. A circle contains more than an ellipse of equal circumference. A deep chest, therefore, is not capacious unless it is proportionably broad.

The Pelvis, is the cavity formed by the junction of the haunch bones with the bones of the rump. It is essential that this cavity should be large in the female, that she may be enabled to bring forth her young with less difficulty.

The Size of the Pelvis is indicated by the width of the hips, and the breadth of the twist, which is the space between the thighs.

The Head should be small, by which the birth is facilitated. The smallness affords other advantages,

and generally indicates that the animal is of a good breed.

The length of the Neck should be proportioned to the height of the animal, that it may collect its food with ease.

The Muscles, and the tendons, which are their appendages, should be large; by which an animal is enabled to travel with greater facility.

The Bones, when large, are commonly considered an indication of strength, but strength does not depend on the size of the bones, but on the muscles. Animals that have been imperfectly nourished during growth, have their bones disproportionately LARGE. Large bones, generally indicate an imperfection in the organs of nutrition.

When the male is much larger than the female, the offspring is generally of an imperfect form. If the female be proportionably larger than the male the offspring is of an improved form. The size of the foetus is generally in proportion to that of the male parent; therefore when the female parent is disproportionately small, the quantity of nourishment is deficient, and her offspring has the proportions of a Starveling. The larger female has a larger quantity of milk, and her offspring is more abundantly supplied with nourishment after its birth. For example, if a well formed ram be put to ewes proportionably smaller, the lambs will not be so well shaped as their parents; but if a small ram be put to larger ewes, the lambs will be of an improved form.

The power of the female to supply her offspring with nourishment, is in proportion to her size, and to the power of nourishing herself from the excellence of her constitution."

Color of Cows.—The quality of the milk depends more on the color of the skin, than the hair. A white cow with a yellow skin, gives better milk, than a dark colored cow with a white skin.

The Eye.—A full and bright eye is to be regarded in the choice of an animal, particularly in calves that are to be raised.

The skin should have a fine mellow touch, and good hair is very important.

There has been a great difference of opinion in England on the external form, that characterizes the most profitable breed for cows. The writer has seen no record of experiments to show the comparative value of the different breeds, the results of which would have settled the various opinions on this subject, and would make this article too lengthy without benefit.

It is therefore proposed to confine the reader's attention to two breeds that have been imported into this country, and to state a few facts to show their fitness for the Dairy and labor, and request a comparison of the external form with D. Clyne's view of the subject.

1st. The improved Durham Short Horned breed. The bulls imported into Massachusetts were Denton, Colebels, and Admiral—and Cows of this breed have been imported by Mr. J. Whitaker, without limit in price—cases are now offered to show that this breed are remarkable good milkers, good feeders, and early arrive at maturity.

Mr. Whitaker had 10 cows which produced

daily 26 quarts of milk, and one of these that was 16 years old, gave 26 quarts.

Mr. Jonathan Roberts of Pennsylvania had a cow that produced milk between Thursday morning and Saturday night—3 days, from which 8 lbs. 13 oz. of butter was obtained, at the rate of 20 1-2 lbs. per week." A quart of cream from the same cow gave 1 pound 5 oz. of butter.

Mr. Carpenter of Pennsylvania reported to the Agricultural Society, that of this breed, "as regards their aptitude to fatten, and their early maturity, I give it as my opinion, that they surpass any other breed of cattle I have seen. Gov. Lincoln formerly governor of Massachusetts and many others confirm this statement.

On the weight.—Of six steers, from 18 to 20 months old, produced at the East Lothian United Agricultural Society, one was killed and the 4 quarters weighed 1653. "A four years old steer when slaughtered weighed 1890. A three year old heifer fed on hay and grass weighed 1280."

This breed has been introduced into this part of the country by Mr. Sanford Howard and Col Green—and the external form is well known to compare with the description of a perfect animal as given by Dr. Clyne.

2d. Two bulls and two cows were imported into Ken. co. from Eng. in 1792. The directions given for the selection were very similar to those of Dr. Clyne—and one of the Bulls afterwards owned by Hon. C. Gore, of Waltham, answered in all his points to Dr. Clyne's description.

The external form of this breed is well known, and have been well fitted for the dairy, and have a disposition to fatten, and for labor.

One cow in five and a half months, gave 202½ lbs. of butter, 36 of cheese, and about 9 quarts of milk, daily, on an average for 50 days—and during the 50 days, 50 lbs. of butter was made. She was exhibited as a fat cow at Brighton in October, and her form was considered as very superior—her weight at 5 years old, without being stall-fed, was 905 lbs.—from the outside of one hip bone to the outside of the other was 24 inches.

A yoke of oxen at the State Cattle Show, girthing about 7 feet 2 inches drew 72 cwt.—the cart and the stones in it, were weighed.

For draft the Short horned, in England, are not considered as equal to the Herfordshire oxen—but far superior in all other respects.

It is evident from what has been stated, that the more perfect the form, as described by Dr. Clyne, the more profitable is the animal, whether for dairy or other purposes.

But to the farmer in this section of the country, it is surely the most for their interest to select stock to breed from according to the description given by Dr. Clyne, and particularly as farmers are obliged to raise stock for the purpose of the dairy, labor, and the butcher.

The writer is aware that this article is lengthy but he did not know how to curtail it.

C. V.

TO FATTEN HOGS.

An English farmer fattened eight pigs in the following manner, which may be recommended

in cases where a constant and regular attention cannot be given to feeding the animals. He placed two troughs in the sty; one he filled with raw potatoes, and the other with peas and gave no water. When the pigs were thirsty they ate the potatoes. In this way it is probable, that the animals would not only thrive without water, but need no antimony, brimstone, nor any other medical substance; for new potatoes being cooling and loosening, might serve at once for food and physic. Instead of peas, perhaps dry Indian corn, or what would be better, Indian meal might be substituted. This mode of management with swine, was first recommended in the *N. E. Farmer*, Aug. 6, 1824, and has been adopted by a correspondent of the *North-ern Farmer*, who directs as follows:

Shut your hogs up the first part of September; feed them with dry peas, or corn; give them raw potatoes, but no drink. The grain creates an inward fever; the animals being uneasy from thirst will chew the potatoes fine, but chew slow and get the substance of them, as well as if boiled. This has been my practice for years past. I give them as much grain as they will eat; and after that, each grown hog will eat from six to eight quarts of potatoes per day."

Cunningham in his *Two years in New South Wales*, relates—"I had often heard it said among sailors, that pigs would fatten on coals, and although I had observed them very fond of munching up the coals and cinders that came in their way, still I conceived they might relish them more as a condiment or medicine, than as food, till I was assured by a friend of mine, long in command of a ship, that he once knew of a pig being lost for several days in a vessel he commanded, and it was found at last to have tumbled into a coal hole, and there lived all that period without a single morsel of any thing to feed on but coals; on being dragged out, it was found as plump and fair as if it had been feasting on the most nutritious food.—Another friend told me of a similar case, which came under his observation, and although these may be solitary instances, yet they serve at the least to show the wonderful facility which the stomach of certain animals possess of adapting their digestive powers to such an extraordinary species of food, and extracting wholesome nourishment therefrom. When we consider coal, however, to be a vegetable production, containing the constituent principles of fat, carbon, hydrogen and oxygen, our surprise ceases.

Young pigs require warm food to make them grow. Corn and cold water will make them sleek and healthy; but warm beverage is considered requisite to a quick growth.—*Marshall's Island Counties*.

The same writer observes that, "every sty should have a rubbing post. Having occasion to shut two hogs out of a sty without one, into another with a post accidentally put up to support the roof, I had a full opportunity of observing its use. The animals when they went in were dirty with broken ragged coats, and with dull heavy countenances. In a few days they cleared away their coats, cleaned their skins, and became sleek haired. The enjoyment of the post was discernible even in their looks, in their liveliness and apparent contentment. The method I have always adopted, and shall pursue, till a better is pointed out, is, to fill about three parts of a large kettle with po-

tatoes; I scatter over them about a peck and a half of barley meal, (or Indian meal,) then fill the kettle with potatoes, adding just as much water as will cover them. Then the meal does not sink to the bottom of the kettle, were it will encrust and burn, nor will it be liable to be wasted by boiling over. The nourishment of the meal is in a great degree extracted by the water. After the potatoes are well boiled, let the whole be mixed and bruised in tubs, with a clean spade, so as to form a pulp. By this method all the nutritious powers of the meal are incorporated, and therefore much easier digested, and the hogs require no water.

In cold weather it should be given blood warm. The swine while fattening should be kept as clean as possible, with dry litter. Twice or thrice a week add about three table spoonfuls of salt to each half bushel of their food, which assists digestion and promotes appetite. When too much salt is given it acts as a purgative, which prevents the deriving of due nourishment from food.—*N. E. Farmer*.

From the Silk-Grower & Agriculturist.

CULTURE OF WHEAT IN THE NEW ENGLAND STATES.

Friend Cooke:—At the close of the ingathering of our Hay and English Grain crops, I with pleasure, seize a few moments to pen a few reflections on the value and culture of wheat in the New England States. The reason for choosing the wheat crop as my theme, are, first, that by a careful attention to its culture, much of our money might be kept within our borders, which now goes to the South and West for the purchase of flour; secondly, that if we take 10 or 15 seasons in succession, we shall find a balance in profit to be placed to the credit of the wheat crop over all other grain.

In giving some proof of the above facts, I will state, that some 12 or 15 years since, I obtained of the Hon. P. C. Brooks, two bushels of a spring wheat bearing the name "Gilman." The product from this was about 25 bushels, for which I received the Massachusetts Agricultural Society's premium for 'the greatest quantity of Spring Wheat from one acre.' This kind of wheat did well, generally, during the 8 or 10 years I sowed it; the kernel was large, weighing 60 lbs. to the bushel; the straw however, was not of sufficient strength for rich lands—crippling down with the first thunder-gust, and of course would not fill, or kernel well afterwards. From the Gilman wheat, the largest crop obtained by me from one acre, was 37½ bushels, I believe, (for I speak only from recollection.)

Several years since, I was fortunate in receiving, (by the kindness of my brother, Capt. Stephen Williams,) some superior seed wheat, from Smyrna, grown on the abundant borders of the Black Sea. After the first year, this kind of wheat has been unparalleled in its value, so far as I have been made acquainted. Three years ago I harvested 112 bushels, grown on a little over three acres, one of which produced over 50 bushels for which I received the Society's gratuity (there not being a premium for Spring wheat that year), of \$20. On another field, of about one acre, I obtained about 25 bushels by the following mode of culture. Early in the fall after the field was well covered with a second

growth of clover and other grasses, the sward—by the agency of a man, (ploughman and driver) one yoke of oxen, and Howard's No. 2, Plough, was turned over, so as to resemble the clapboarding of a house. In the spring following, so soon as the ground was sufficiently dry, a light ploughing was given across the furrows, so as not to disturb the furrowslice,—the field then sowed and harrowed. It will be seen that the expense attending this mode of culture was trifling, compared with the income; the land likewise being left in excellent order for a following crop of Indian Corn, or Potatoes, by ploughing in the spring through the first furrowslice, or rotted sward. I deem it not out of place here to observe that this field, six years previous had been stocked down to grass with a previous dressing of 18 cords manure to the acre. The grass crops had probably averaged 2 tons to the acre, of the best of hay, (of clover, herds grass, and red top.) I mention this to show that the farmers of this country are too apt to fill more land than they can manure profitably.

The Smyrna or Black Sea Wheat, appears to possess properties superior to all other kinds which have come within my observation; these qualities are strength of straw, thereby bearing better the peltings of our New England storms: the kernel large and plump, with large yield on rich land, weighing 62 lbs. per bushel,—and more in bushels on poor land, than spring rye.

Last season my crop of wheat was about 30 bushels; about one-half was disposed of for sowing at \$2.50 per bushel. Thirty-five of these bushels were grown on less than an acre, which also received a gratuity of \$20, (by the decision of the Committee on Crops for the Massachusetts Agricultural Society.) What the product will be from the sowings of this year, I am unable to state,—not any of it having been threshed. I will state that my own fields (being in very rich tilth) is not so well kernelled as last year. The reason for this may be found in its too rapid growth for about 12 successive days, previous to the formation of the berry or kernel, followed by successive and deluging showers which as often beat the crop nearly down. On harvesting the wheat, the kernel is more plump than was expected during the 4 weeks previous to the cutting; the crop will not much exceed 30 bushels to the acre; with such a season as last, it would probably have been over 50.

In giving the above facts, Mr. Editor, my aim has been, to establish in the minds of the agricultural community in this section of our country, what is so strongly impressed on my own, viz: that in most of the New England States, the husbandman can take a greater profit from his acres, in a wheat crop, than in a like number of acres in any other.* There will doubtless be

*Having cultivated wheat for the last 16 years as my principal grain crop—my confidence will not be considered too sanguine, when I state, that during that period, I have had the honor, good fortune, or whatsoever term it may pass by, but, most assuredly, the profit, of receiving as many as six of the premiums and gratuities bestowed by the Massachusetts Agricultural Society; with an additional profit of \$70 from the acre,

solitary exceptions, especially where the sower casts his seed upon the ground with much *faith* and little *works*, as it will be recollected, that wheat demands a fine tilth, with a previous nullification of the authority of certain interlopers, commonly called *weeds*.

My method in preparing seed wheat for sowing, is to mix a sufficiency of thick white wash, made from good lime, to coat over every kernel, say one quart to a bushel of seed; ley, from wood ashes, will answer as well, except the sowing cannot be performed so evenly. I have never been troubled with the *smut* on a crop thus prepared.

If the farmer can procure 20 bushels of good wood ashes for every acre of wheat, to be sown on the wheat plants occupying 2 inches of ground, he will be amply remunerated.

Thirty or forty bushels of the Smyrna, or Black Sea seed wheat, (perfectly clean) may be had at \$2.50, at the granary of

Yours, respectfully,

PAYSON WILLIAMS.

Fitchburg, Aug. 24, 1836.

P. S. I see in the Silk Grower and Agriculturist, you speak encouraging of the Indian Corn crop in the "Granite State." I hope your anticipations may be realized. Our hay crops have come in much better than was expected in the early part of the season, but when we consider that most of the grass was grown in *shade* and *showers*, we must admit the fact, that it will require 2500 lbs. of the cutting of the present year, to be equal to 2000 lbs. of that of the last year; consequently every farmer should husband the provisions for his stock with the most scrupulous care, the more so, if we are to be nearly deprived of that great auxiliary, Indian Corn—a fear which the present aspect of the fields in the "Bay State," but too surely indicates; being generally scarcely silked out,—which, from that state to the perfecting the grain, I believe, requires about seven *warm*, not to say *hot*, weeks; can we get this? Time alone can tell. P. W.

Will some one of your subscribers for the Silk Grower be so kind as to answer the question:—Will a congregation of *Silk Worms* survive the effects of six *wet* days, while being fed with the Mulberry leaves plucked each day? or, in other words, if the food for the Silk Worm is given wet, will they not die?

in two of the above years, in the sale of grain for sowing and other purposes. Others can do even more than this, if they will but "try."

From the Farmers' Magazine.

On the Difference in the Effect of Dung upon different soils—and upon the same land before and after it has been Limed.

[The following communication is from the aged and venerable farmer who has been sometimes honored, and not undeservedly, by the name of the "Father of Scottish Husbandry"—and it deserves attention, not only for the truth and value of the opinions it conveys, but for the novelty and rareness of their appearance. So far as we know, this is the only instance, before the first publication of the *Essay on Calcareous Manures*, (and this was not known until after that

publication,) of its being maintained by any book, or writer, that natural poor soils cannot be profitably and durably enriched by dung alone, until after they have been limed. The deductions from Mr. Dawson's statements accord entirely with the opinions maintained in the work referred to, as to the effects of manure on poor soils.] —*Farmers' Register*.

That dung produces much greater effect upon good than upon bad land, when in tillage, is generally known, though not so fully attended to as it ought to be; but the difference in its effects upon different kinds of land, when in grass, though much more considerable, has been very little observed; notwithstanding it is obvious that the dung of animals has a great effect upon all pastures which consist of what are called the finer grasses; that it has scarcely any upon land that is covered with bent-grass, or fog; and that it is of more or less value upon pasture as herbage of the former or latter description predominates.

As accidental circumstances directed my attention more particularly to these consequences it may be of use to publish an account of them in your Magazine, so far as they have been ascertained by my own experience; since it may induce some of your readers to communicate other facts and observations illustrative of this important subject.

In the year 1754, having occasion to carry a quantity of very fine black loam from a head-ridge of old infield land, to give the surface water a free passage, it was laid upon outfield benty grass land adjoining, of which it covered about a quarter of an acre fully one inch thick. No grass seeds were sown upon this new covering; yet white clover, and other fine grasses sprung up and gradually increased upon it; and the bent, upon which the loam was laid, diminished so speedily, that very little of it remained in the third year thereafter.

A few years after this, having a considerable extent of outfield land in fallow, which I wished to lime previous to its being laid down to pasture, and finding that I could not obtain a sufficient quantity of lime for the whole in proper time, I was induced, from observing the effects of the fine loam upon the surface of similar soil, even when covered with bent, to try a small quantity of lime on the surface of a part of this fallow, instead of a larger quantity ploughed down in the usual manner. Accordingly, in the autumn, about twenty acres of it was well harrowed, and then about fourteen Winchester bushels only of unslacked lime was, after being slacked, carefully spread upon each English acre, and immediately well harrowed in. As many pieces of the lime, which had not been fully slacked at first, were gradually reduced to powder by the dews and moisture of the earth—to mix that with the soil, the land was again well harrowed, in three or four days thereafter. This land was sown in the spring with oats, with white and red clover and rye grass seeds, and well harrowed without being ploughed again. The crop of oats was good; the plants of grass sufficiently numerous and healthy; and they formed a very fine pasture which continued good until ploughed, and years after, for corn.

About twelve years afterwards, I took a lease

of the hilly farm of Grubbet; many parts of which, though of an earthy mould tolerably deep, were too steep and elevated to be kept in tillage. As these had been much exhausted by cropping, and were full of couch-grass, to destroy that, and procure a cover of fine grass, I fallowed them, and laid on the same quantity of lime per acre, —then harrowed, and sowed oats and grass seed in the spring; exactly as in the last mentioned experiment. The oats were a full crop, and the plants of grass abundant. Several of these fields have been now above thirty years in pasture, and are still producing white clover and other fine grasses; no bent or fog has yet appeared upon them. It deserves particular notice that more than *treble* the quantity of lime was laid upon the fields adjoining of a similar soil, but which, being fitter for occasional tillage, upon them the lime was ploughed in. These fields were also sown with oats and grass seeds. The latter thrived well, and gave a fine pasture the first year; but afterwards, the bent spread so fast, that, in three years, there was more of it than of the finer grasses.

In all these instances where the lime was only harrowed in, and not ploughed down, the land not only continued to produce the finer grasses, but the dung of the animals feeding upon them had the same effect in increasing the quantity and verdure of the grass, as it has upon rich, loamy, infield soils; of this, the parts of Grubbet hills, above alluded to, afford a full proof at this day. Whereas, wherever the lime was ploughed down, the parts of the soil at the surface, which were not sufficiently mixed with lime, though sown with clovers, became gradually covered with bent; and dung of animals had little or no effect upon such benty parts. That animal dung has little or no beneficial effect upon such pastures, is obvious from this circumstance, that, in all hilly countries there are great tracts of benty grass land, which have continued for centuries, though constantly pastured with sheep or cattle, without any visible improvement; the animal dung neither increasing the quantity, nor improving the quality of the pasture. But it is still more remarkable, that dung has no permanent effect upon such soils, even when ploughed down, as appears from the following facts.

In the year 1756, about five acres of earthy outfield benty land were folded with sod-dikes, and very well dunged, with the intention of ploughing it for oats; but upon determining afterwards to enclose about sixty acres to be contained in pasture, of which those five acres made a part, the intention of ploughing these folds was given up, and the dikes were thrown down in the spring, well harrowed and sown with rye grass. The effect of the dung upon that land was very considerable the first year, a great deal less so the second, very little the third, and was not visible afterward. Seven years thereafter, it was ploughed with oats along with the rest of the field, when the effects of the dung were expected to be considerable; but the crop was no better upon the folded part, than upon the others, nor was it any better upon the sides of the sod-dikes, where the dung had been at first fully covered in by the earth of the sods.

Some years afterwards, about ten acres of benty outfield was fallowed, and intended to be

limed; but, for particular reasons, no part of it was limed. One half of it, however, was dunged from the farm-yard. The whole field was sown with oats and rye grass seeds. The crop of oats was much better upon the part that was dunged, as was also the rye grass, the first year; but the bent spread so fast upon both parts, that no rye grass was left the fourth year, nor was there any greater verdure upon the part that was dunged than upon the other part. When the whole field was ploughed some years after, there was no visible difference in the crops between the two parts: the crop upon both was very bad.

But from the following facts it appears, that upon that sort of soil, when properly mixed with lime, the effects of dung are not only greater, but much more permanent, whether under tillage or pasture. After laying at least fifty bushels of unslacked lime upon each English acre of the dry benty land of the farm of Frogden, I cropped it what was then called the Norfolk rotation, viz: 1st year, Turnip; 2d, Barley or Oats; 3d, Grass; and 4th, Oats or Wheat. It was expected that this mode of cropping would not exhaust the land; but I found, even in the second round, that the crops were so very much worse on the thin soils, that it was necessary to allow the land to continue some years in pasture to recover its fertility; and for that purpose it was sown with equal quantities of red, white, and yellow clovers, with a small portion of rye grass seeds. As the land had been twice fallowed, and carried three crops of turnips, horse-hoed after liming, and had never been ploughed deep, the surface soil was well mixed with lime; and accordingly the clover was not afterwards injured by the native bent. But as the land had been exhausted by cropping, sheep were folded upon it in nets the first summer. Their dung greatly increased the quantity and richness of the pasture; and though the effect was less the next year, it continued to be considerable, and the pasture seemed still improving after the third year. After being six years in grass, the land was ploughed up, and produced full crops. As the soil of the fields treated in this manner was in every respect similar to that of the five acres which were folded in 1756, and to the soil of the field of ten acres, half of which was dunged from the farm-yard, as already mentioned, the very great superiority in the permanency of the effects of dung in the latter instance, over that in the two former, can only be imputed to the lime.

From the preceding statement, the following conclusions deserve the attention of agriculturists.

1st. That animal dung dropped upon coarse, benty pastures, produces little or no improvement upon them; and that, even when sheep or cattle are confined to a small space, as in the case of folding, their dung ceases to produce any beneficial effect, after a few years, whether the land is continued in pasture, or brought under the plough.

2d. That even when land of this description is well fallowed and dunged, but not limed, though the dung augments the produce of the subsequent crop of grain, and of grass also for two or three years, that thereafter, its effects are no longer discernable either upon one or the other.

3d. That when this land is limed, if the lime is kept upon the surface of the soil, or well mixed with it, and then laid down to pasture, the finer grasses continue in possession of the soil, even in elevated and exposed situations, for a great many years, to the exclusion of bent and fog. In the case of Grubbet hills, it was observed, that more than thirty years have now elapsed. Besides this, the dung of the animals pastured upon such land, adds every year to the luxuriance, and improves the quality of the pasture, augments the productive powers of the soil when afterwards ploughed for grain:—thus producing upon a benty outfield soil, effects similar to what are experienced when rich infield lands have, been long in pasture, and which are thereby more and more enriched.

4th. That when a large quantity of lime is laid on such land, and ploughed down deep, the same effects will not be produced, whether in respect to the permanent fineness of the pasture, its gradual amelioration by the dung of the animals deposited on it, or its fertility when afterwards in tillage. On the contrary, unless the surface is fully mixed with lime, the coarse grasses will, in a few years, regain possession of the soil, and the dung thereafter deposited by cattle will not enrich the land for subsequent tillage.

Lastly, It also appears from what has been stated, that the four-shift husbandry is only proper for very rich land, or in situations where there is a full command of dung: That by far the greatest part of the land of this country, requires to be continued in grass two, three, four, or more years, according to its natural poverty: That the objection made to this, viz: that the coarse grasses in a few years usurp possession of the soil, must be owing to the surface soil not being sufficiently mixed with lime, the lime having been covered too deep by the plough.

There are other manures besides lime, which to a certain degree produce similar effects, upon which some observations may be offered at a future opportunity. I am, sir, yours, &c.

WILLIAM DAWSON.

Edinburgh, March 2.

From the Western Farmer.

ON TRANSPLANTING.

There is no operation more important to the agriculturist than that of planting out fruit trees; because, if properly performed, the benefits of the operation are for himself and for his posterity. Hence the damage of introducing improper practices founded upon unsound principles, in planting.

Having observed in your November number of the Western Farmer, some "Notes on Transplanting," copied from the New York Farmer, recommending the planting out of trees without lopping off any part of the top or branches—and apprehending that the reasoning in favor of that practice is incorrect, and might mislead, to their injury, the confiding and inexperienced, I beg leave to offer a few observations on the subject.

The author of those "Notes," it appears to me, reasons badly, when he draws an argument in favor of his new theory, from the fact of the greater success in planting a young tree "with its limbs and roots entire," than "the larger one with

the system of decapitation practised upon it."—He infers that the difference arises from the amputation of the branches—whereas it proceeds from the greater loss of the roots, in digging up the larger, than the young tree. In removing a young plant, it is quite practicable to retain a much larger proportion of the extremities of the small fibrous roots, adapted to the intromission of the plant, than of a large tree. There can be no doubt that the roots are more essentially the life sustaining members of plants than the branches—therefore, when a tree (small or great) is removed, the chance of its living depends more upon retaining a due proportion of its most essential members.

The soundness of theories may sometimes be tested by pushing the principles on which they rest to their extremes. Let us see whether the theory here controverted can stand this test—Plant a young tree with its branches and roots entire. It will live—cut off a branch, it will live—cut off several, it will still live—nay, cut off the whole, leaving only the stem, and it will not only survive, as a thousand instances have proved, but being sustained by the roots, it will put out new branches and will flourish.

Plant another tree with its branches and roots entire—try the same process of amputation on the roots, and ere you reach the last root, the branches will wither, and the tree will decline and die.

An argument in favor of the new theory is attempted to be founded on a supposed analogy between vegetable and animal life. "But (says its author), would any person in his senses think of cutting off a child's arm because it had the misfortune to lose its foot?" Certainly the author of the notes, in this question, loses sight entirely of the supposed analogy. The food of an animal is not constituted an organ to receive through its pores nourishment for the sustenance of the body, as the roots are of a tree. The stomach of an animal is this organ. Now let us suppose the stomach to be wounded or impaired, so as not to be able to perform adequately the functions of receiving, preparing, and furnishing the body a due portion of food. What is the consequence? Why, by an invariable law of nature, the bulk of substance to be supported, must be reduced, the body and limbs fall away and dwindle, sometimes almost to a skeleton. But when the stomach recovers its tone, and performs properly its functions, then the body and limbs begin to recover, and finally assume their wonted size and fullness. So when the roots of a tree have been reduced or impaired, to a degree which leaves them incapable of supplying adequate nourishment for the whole tree, body and limbs, the same law of nature ordains, that a portion of the substance to be supported, must be reduced—the limbs wither, dry, and decay: and who ever yet saw a dry dead twig, restored so as to vegetate?

As then, in the cases supposed, art is incapable of reducing the bulk of the animal, but nature is incompetent both to reduce and restore—as art is capable of reducing the bulk of the tree, leaving only as much as can be supported by the appendant root,—and as reduction, of the bulk to be supported, is indicated in both cases when the sustaining organs are impaired, it would seem

that the analogy is clearly in favor of trimming off a portion of the limbs, so as to leave the top of the tree proportioned to the remaining root.

But further—is not this new theory entirely at war with the system of pruning? done for the double purpose of preserving the tree, and improving the fruit, a system which has stood the test of ages, and has the sanction of experience,—the best guide to young agriculturists.

But facts are the best arguments in these matters; about 30 years ago, I transplanted a pear tree into my garden. It was seven inches through, dug up in December in freezing weather. To save it I trimmed off most of the top, so much as to admit of its being carried into a cellar to preserve it for the night from the frost. Next day it was carried a mile and planted. It is yet a good bearing tree. About ten years past I transplanted a bearing Junetnet apple tree more than half grown, cutting off most of the top. This year it bore the best and largest apples of any Junetnet tree in my orchard.

Some four or five years past a neighbour of mine transplanted from the forest to his yard a very uncommon and beautiful tree, bearing berries—desirous of saving the top, he trimmed off none, and the tree died.

Such facts could be advanced without number. S.

From the Maine Farmer.

Sheep Pastures good to raise Wheat. False notions of labor, &c.

In conversation with a friend of mine at the late cattle show and fair, who is from the county of Somerset, he informed me that he raised his wheat principally by ploughing up his sheep pasture. After he had pastured his best tillage about three years with sheep, he broke it up and sowed it to wheat. He had become so successful in the mode of raising this grain in this way that he averred he would not let a man pasture his sheep if he would do it for nothing. Last season he sowed 25 bushels on about twelve and a half acres of land. He has not threshed it yet, but he believed that from appearances, he was warranted in saying that the yield was twenty-five bushels to the acre. From this I am led to make the following calculation. Wheat will probably be worth two dollars and fifty cents the bushel to grind into flour, taking the present price of flour as data to go upon. If this is right, the amount per acre will be \$62.50. If the straw will pay for threshing, \$8.50 will cover all the expenses of growing it; we will, however, call it nine dollars—this will leave him, to say nothing about rent, taxes or fences, \$55.50 per acre, which, he says, is profit enough to satisfy any honest man. This has been done the present year, provided I am right in my calculation, and I have more fears that wheat will be higher than lower. The profits on these twelve acres and a half will amount to six hundred and sixty-nine dollars and thirty cents. He said that he had already ploughed about thirty acres to sow in the ensuing spring. In his neighborhood, he remarked, the rage was all for lumbering, but he was determined not to lumber, and he hoped not to go to New York to mill. What is not a little strange in this thing is, that this profitable crop was grown on land that would not bring more than ten dollars per acre.

Now, sir, I am fully persuaded that the mighty machine called public opinion ought to be set right as it regards Agriculture and the mechanic arts, not only in that neighborhood, but throughout our whole state, or we shall never be rich or happy. We must give up the wild notion of getting rich in a day. We must throw ourselves on the stable foundations of industry and economy for a living. Were one to watch the habits of most of those in the vicinity where I live, he would be led to believe that riding in a carriage is considered the summit of all happiness in this life.

There are certainly many who call themselves farmers, who spend more days in a carriage than on their farms.

The farmer can get in with a hired hand and a boy a large crop in the course of the year—certainly if he ploughs part in the fall—but if the mechanics and “professional” men will not help him reap his harvest, at such a price as he can afford to give, he cannot harvest it, and it must go back again into the earth, even if he has money in his hand to pay for labor to cut it. There is another very numerous class, in this part of the country, which I despair of ever seeing in a harvest field. I refer to those who *feel too big* to do *any thing*. Who live in the fore part of their lives upon their relations, and in the latter part at the expense of the town, some of whom have boldly told me that they had rather be maintained by the town than work as you do. Let the preachers of the gospel—the mechanic—the professional man work, and the drones of society be kicked out of doors by their friends on whom they live, if they do not labour in the field instead of staying at home hypocritically causing their friends to make herb drink for them. If all hands who ought would plough and sow as much as they might, Maine would not purchase her bread stuffs from abroad. But there are too many unproductive men among us. I can sooner and easier obtain fifty professional men, and a hundred drones, than one good common laborer on a farm. Now gentlemen drones—if you starve a little who will pity you? A reformation in this respect ought to take place. Let a young man have a farm worth \$1500 and understand his business, and a capital besides of \$500, and he can make more money than at any other business I know of at the present day. Is it then a disgrace for a young man of common or uncommon abilities to be a farmer? If so, then starve until it becomes honorable, for starve you must if you embrace such opinions. If nothing else can, may the hard hand of necessity set you right.

Youth of our country, read the above—Physical strength of our country, read the above—Defenders of our country, read the above—all that have the good of the country at heart, read the above, and if you do not blush when you see so many drones, and hear such mistaken notions, as they will advance, I shall be sorry for you.

ELIJAH WOOD.

Winthrop, October, 1836.

From the Maine Farmer.

RUST IN WHEAT.

Mr. Holmes:—As one of the public I feel under great obligation to your correspondent J. H. J.

not because I believe his every idea is built on facts or sound reasoning, though most of them may be, but particularly because he comes forward and lets us know what he thinks; and if he has at any time brought forth some errors, as I may have supposed, it has caused me to look at the subject again, and it may be he has convinced me that my former views were wrong—if not, on a review of the subject I may have been more certain my own were right. As he seems to be, as to his own respecting rust in wheat, &c. I requested him to look at the subject again, hoping his mind was above all prejudice in favor of his own child. Notwithstanding, I think I see something of it in his piece in the 34th No. of the present vol. wherein he informs us that he has reviewed. We both agree that great fermentation, or a very high state of richness in the soil, has a tendency to produce disease in many vegetables here growing—but he says rust does not always follow in this case—who ever thought it did? We know that dry and cold seasons counteract that tendency, and in such seasons we often have fine crops, whereas had the season been warm and showery the circulation of the sap would have been so powerful, if it took place at a certain stage of the growth of the plant, as to burst the straw and let off the juice or sap absolutely necessary for the maturity of the kernel. This is seen when dried on the outside of the straw by every farmer except my worthy friend from Peru. No doubt rust comes from a cause, like what he says of previous intemperance aiding in carrying on the work of death in the cholera. Who can doubt but all effects must have a cause—in this we can but agree. I noticed to him that rust was most common where land was in a very high state of cultivation, and noticed ashes as producing it only when largely applied. I also noticed this because he had maintained that rust might be an insect, and I thought insects would not choose such a situation to repose in. How my friend could suppose that the case he put, about a bug flying round his candle in the evening, had any similarity to insects or animalculae choosing to roll themselves up in ashes I know not. His bug became destroyed, I venture to say, when it came in contact with the blaze of the candle; but to make it similar the bug must have continued there unhurt like his insects in the ashes. As yet I cannot consent to untie us, as he calls our different views a tie. I only add that Dr. Dwight's pleasing child, as he calls it, on the sap bursting system, may live as long as his animalculae will in ashes.

A FARMER.

A very simple but efficacious Remedy.—A gentleman got a spark of locomotive into his eye, while travelling on the rail-road. He tried various means to remove it in vain; it caused great pain. When he came on board the steamboat, the engineer took a horse hair, formed a loop by bringing the ends together, when raising the eyelid and inserting the loop between it and the eye ball, and then letting the lid fall, he drew out the hair, and with it the little cause of great pain. This is a very simple way to remove whatever may get into the eye, and should be remembered.

OBTAINING CREAM FROM MILK.

A process of divesting milk of its component portion of cream to an extent hitherto unattainable, has been effected by Mr. George Carter, of Nottingham Lodge, and is thus detailed by that gentleman, in a paper presented to the Society of Arts:—A peculiar process of extracting cream from milk, by which a peculiar richness is produced in the cream, has long been known and practised in Devonshire; this produce of the dairies of that country being well known to every one by the name of "clotted" or "clouted" cream. As there is no peculiarity in the milk from which this fluid is extracted, it has been frequently a matter of surprise that the process has not been adopted in other parts of the kingdom. A four sided vessel is formed of zinc, plates, 12 inches long, eight inches wide, and six inches deep, with a false bottom at one half the depth. The only communication with the lower compartment is by the lip, through which it may be filled or emptied. Having first placed at the bottom of the upper compartment, a plate of perforated zinc, the area of which is equal to the false bottom, a gallon (or any given quantity) of milk is poured immediately when drawn from the cow, into it, and must remain there at least for twelve hours, an equal quantity of boiling water must then be poured into the lower compartment through the lip; it is then permitted to stand twelve hours more, when the cream will be found perfect, and of such consistence that the whole may be lifted off by the finger and thumb. It is, however, more effectually removed, by gently raising the plate of perforated zinc from the bottom by the ringed handles, by which means the whole of the cream is lifted off in a sheet, without re-mixing any of it with the cream below. With this apparatus I have instituted a series of experiments; and as a mean of twelve successive ones, I obtained the following results: four gallons of milk treated as above, produced in twenty-four hours four and a half pints of clotted cream, which after churning only fifteen minutes, gave forty ounces of butter—four gallons of milk treated in the common mode, in earthenware pans, and standing forty-eight hours, produced four pints of cream, which, after churning ninety minutes, gave thirty-six ounces of butter. The increase, therefore, in the quantity of cream, is twelve and a half per cent. The experimental farmer will instantly perceive the advantages accruing from its adoption, and probably his attention to the subject may produce greater results. I shall feel richly rewarded if, by exciting an interest on the subject I can produce any, the slightest improvement in, the quantity or mode of producing an article, which may properly be deemed one of the necessities of life.—*Repository of patent inventions.*

Silk Reel.—The grand desideratum for the farmer and for general use—a perfect silk reel—constructed upon so simple a plan, that every body will wonder why it has not always been in use, has been attained. These reels may be had at \$6 a piece, and it is believed they will ensure the home supply of silk—that they will be to the silk manufacture what the power loom was to the cotton, and ensure its triumph. The difficulty heretofore has been that the reel has been so complicated and costly, that farmers, &c. have not

been able to reel the cocoons on their farm, and by remaining on hand, or if carried away, they have been damaged, and their value thereby diminished, if not destroyed. The simplicity and economy of this machine, will enable almost every family in the country to avail themselves of its advantages. Orders for their manufacture received at 187 Broadway.—*N. Y. Com. Adv.*

A Lady clothed in American Silk.—At the Agricultural Exhibition of Merrimack county, Mas. Mrs. Kimball, of Hopkinton, New Hampshire, was present, robed in rich and durable silks of her own manufacture. She raised the silk-worms, reeled, twisted, dyed, and wove the silk, and for aught that is known to the contrary, made the garments with her own hands.

The *Silk Culturist* very properly cautions people against itinerant men who are about the country selling spurious mulberry seed and bartering off Chinese trees. Yankees should be upon the look out, and not let them fleece each other so easily. The sale of trees has become an important business, and of course, with irresponsible men, there can not much be expected in the shape of rigid honesty. Persons in want of trees or seed should apply to men of known character and integrity.

Bleeding at the Nose.—Bleeding at the nose if it be ever so violent or protracted may be permanently stopped by the individual using some salted dried beef which has been grated fine with a nutmeg or other grater in the same way that he could take snuff; two or three pinches are said to be sufficient to stop any fit of bleeding.

Cure for Warts.—Rubbing warts with muriate of ammonia, will assuredly remove them, without pain or inflammation, unless they happen to be particularly hard. Touching them with utric acid effects their positive destruction much more speedily, but there is some considerable inflammation accompanying the process. A strong solution of the nitrate of silver, the concentrated acetic acid, and the *tinctura ferri murialis*, procurable at any druggist's, are each of them remedial agents wholly subduing those unseemly, uncomfortable excrescences on the hand. So simple and so certain are each of the articles mentioned, that it would be really a pity not to have the fact generally known: When warts become ragged and horny in their texture, they are a constant source of irritation, besides very considerably deforming the hand.—*Scientific tracts.*

CONTENTS OF THIS NUMBER.

Provender for cattle—Chinese mulberry and two crops of worms in a season—Forty years difference in prices—Manures—Dairying—To fatten hogs—Culture of Wheat in New England—On the difference in the effect of dung—On transplanting—Sheep pastures good to raise wheat—Rust in wheat—remedy for an injury to the eye—obtaining cream from milk—silk reel—a lady dressed in her own manufacture of silk—caution against spurious mulberry seed—cure for bleeding at the nose—cure for warts—advertisements—prices current.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms	\$30,	with extra pair of knives,	\$33
11 " Permanent Bottom 28,	do do do		31
13 " " " 43,	do do do		48
13 " Revolving Bottom 45,	do do do		50
15 " " " 50,	do do do		56
20 " Large size fitted for horse-power 80,	do do		90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herd Grass seed of superior quality.

JONATHAN S. EASTMAN.

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved Jacks, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 13½ hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address

I. I. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth st. Philadelphia. Philadelphia, Oct. 13th, 1836. oc 25

TWO POINTER PUPS.

FOR SALE, 2 handsome pointer pups, the one 4 the other 2 months old, and both warranted to be a pure strain. The price of the first named is \$10, that a the latter, \$5. oc 18

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	6 50	7 50
CORN, yellow,.....	bushel.	88	90
White,.....	"	80	83
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/4	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	—
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	9 50	9 62
SuperHow. st. in good de'd	"	9 75	—
" wagon price,.....	"	9 50	—
City Mills, extra,.....	"	9 50	10 00
Do.	"	—	9 25
Susquehanna,.....	"	—	9 25
Rye,.....	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. in bbls.	bbl.	—	4 75
GRASS SEEDS, red Clover,.....	bushel.	7 00	7 25
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 50	8 75
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	47	50
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	5 00
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGE,.....	pound.	3	4
RYE,.....	bushel.	110	120
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf, ..	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	2 00	2 20
Red, best,.....	"	1 90	2 10
inferior,.....	"	1 40	1 60
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhds.....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 to 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28
Howard st. Flour, sales limited, receipts very light.			

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	17	18
Shoulders,.... do.....	"	14	—
Middlings,.... do.....	"	—	14
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	25 00	45 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	10 00	—
No. 2,.....	"	9 50	—
Herrings, salted, No. 1,.....	"	3 12	—
Mackerel, No. 1, —...—No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....do	Farmers Bank of Virginia,.....do
Other Branches,.....do	Bank of Virginia,.....do
MARYLAND.	Branch at Fredericksburg do
Banks in Baltimore,.....par	Petersburg,.....do
Hagerstown,.....3a	Norfolk,.....do
Frederick,.....do	Winchester,.....do
Westminster,.....do	Lynchburg,.....do
Farmers' Bank of Mary'd, do	Danville,.....do
Do. payable at Easton, do	Bank of the Valley,.....do
Salisbury,.....5 per ct. dis.	Branch at Romney,.....1
Cumberland,.....1	Do. Charlestown, do
Millington,.....do	Do. Leesburg,.....do
DISTRICT.	Wheeling Banks,.....2a2 1/2
Washington,.....	Ohio Banks, generally 3a3 1/2
Georgetown, } Banks, 1.	New Jersey Banks gen. 1a2 1/2
Alexandria,.....	New York City,.....1a
PENNSYLVANIA.	New York State,.....2a3 1/2
Philadelphia,.....1a	Massachusetts,.....2a2 1/2
Chambersburg,.....1a	Connecticut,.....2a2 1/2
Gettysburg,.....do	New Hampshire,.....2a2 1/2
Pittsburg,.....2a2 1/2	Maine,.....2a2 1/2
York,.....1a	Rhode Island,.....2a2 1/2
Other Pennsylvania Bks. 1a2 1/2	North Carolina,.....3a3 1/2
Delaware [under \$5].....3a4	South Carolina,.....3a3 1/2
Do. [over \$5].....2a2 1/2	Georgia,.....3a4
Michigan Banks,.....5a	New Orleans,.....6
Canadian do.....5a	

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee. Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Tarf Register office, corner of North and Fayette st. Baltimore

sep 27

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oct 1

A FINE LOT OF PIGS.

A gentleman in Baltimore County who last October, at our Fair, bought that beautiful Berkshire boar and two of those fine sows, a cross between the Hallam and Thirind, has twelve very fine pigs of their produce, which he will sell at \$10 a pair deliverable in Baltimore. Any orders addressed to this office will be promptly attended to, the pigs deliverable on the 20th October ensuing.

Sep..

4t.

FOR SALE,

Upwards of 200,000 silk-worm eggs.
Address J. A. S. Patriot Office, Baltimore, Md.
Sep. 27. 3t.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1/2 to 4 feet—the 2 feet and 1 1/2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.

ROBERT SINCLAIR.

CHINESE MULBERRY TREES AND CUTTINGS.

THE best varieties of CHINESE MULBERRY, (Morus Multicaulis) from France, Italy and China, of one, two and three years' growth, may be had in large or small quantities, from S. WHITMARSH's extensive collection, and forwarded to any part of the United States, according to order, with directions for propagation.

It is confidently believed, that the present mode of culture adopted by us, will prove a certain and secure protection against the severity of winter, and the best method by which to increase the foliage and multiply the number of trees.

All orders directed to the subscriber, will receive immediate and faithful attention.

In behalf of S. WHITMARSH,

DANIEL STEBBINS.

Northampton, Sept. 7.—20

3t.

POINTERS AND MASTIFFS.

TEN Pointer pups about 4 months old, of good strain—warranted genuine.

ALSO—4 Mastiff pups, considered above all others the most faithful watch dogs.

The above pups can be procured by any persons wanting either of them, by application to the editor of the Farmer and Gardener, Baltimore.

All applications by letter, must be post paid.

3t

sep 20

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener.

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THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 29.

BALTIMORE, MD. NOVEMBER 15, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light, near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, NOV. 15, 1836.

We have before, in previous numbers of our journal, called the attention of our agricultural readers to the great saving of time and labour which is to be effected by the substitution of the *Cylindrical Corn Sheller* for the old method of shelling corn by hand, and we are again reminded of the great utility of this improvement by a letter from a large planter in Virginia, which states that he had had 800 bushels of corn shelled in a single day by one of them. As this is the season for such labor, we have thought it not amiss to state this fact, in the hope that it will prove beneficial to our country friends.

Buckwheat Straw.—A Correspondent, who signs himself "A Young Farmer," asks us whether any use can be made of his Buckwheat straw? Our reply is, that it is better for milch-cows than the best timothy hay—that his cows will eat it with equal avidity,—that if it has not been exposed too long to the vicissitudes of the weather it will prove equally nutritious to them,—that so far as the secretion of milk is concerned it is infinitely preferable to any hay or fodder within our knowledge, and that when cut and boiled, or steamed, it makes a most acceptable sloop for the cows. We will say further, that the "old plan" of throwing this wholesome and nutritious provender upon the dung-heap, or in the barn-yard, to be trampled under foot, should be abandoned, and that henceforth it should be permitted to assume its proper rank among the choicest hay for neat cattle.

Mammoth Radish.—Capt. R. B. A. Tate of Queen Anne's County, Md. recently presented the editor of the Centreville Times with a radish more than two feet long, and thick in proportion.

GREAT PRODUCT AND USE OF RUTA BAGA.

Mr. R. Gordon in a communication published in the *Farmer and Mechanic*, states that he last year raised from an acre of ground planted in Ruta-baga, 1510 bushels of that fine root; that he expended on it 30 days labor. But this is not the most pleasing part of Mr. Gordon's experiment in the culture and use of this nutritious product of the earth. He tried the experiment of feeding two yoke of working oxen.—To the one yoke he allowed two bushels of Ruta-baga in the same time that the other yoke consumed a bushel of corn; and he is entirely satisfied that two bushels of Ruta-baga is better than half that quantity of corn for working oxen or other neat stock. This experiment of Mr. Gordon's corresponds with most of those which have been made by other feeders in Europe, and in America. A prejudice exists against the culture of the Ruta-baga in this country with many farmers; but why it should exist we know not, unless it be,—1st. because the method of cultivation is different from the mode pursued generally with the other varieties of the turnip—2dly, because among the first plans suggested, was that of transplantation by *dibbling*, a plan of culture too monstrous for the advocates of the good old ways of their grand-fathers to even think of contemplating, much less acting upon. The truth is there is no mystery about the culture of the root. It may be successfully raised in the same manner of other turnips; but we believe the best way to cultivate either, is by *drilling*, whether regard be had to *product* or the saving of labor and manure.

Mr. Gordon raised 1510 bushels from an acre, and for the purpose of feeding working oxen or other neat cattle, proved that two bushels of this root is better than one of corn: now let us for argument sake presume, it is as good, and that, instead of 1510 bushels being produced on an acre, 500 bushels may, with proper manuring and culture, be raised thereon. That this quantity may be raised we do not in the least doubt, and thus believing, we will not stop to make the calculation here, as to *saving*, but shall leave that to the farmer to do at his leisure for himself. But we would respectfully remark, that, if the ruta-baga

will answer for the feed of working oxen, we can see no possible reason why it will not answer equally well for working horses also.

In England many distinguished farmers do feed it to them, with the addition of a little bran of some sort, and salt sprinkled over the roots cut into pieces sufficiently small to be eatable by the animals. At first it is said some horses will reject such feed; but after a few trials become not only used to, but passionately fond of it. The culture of this root does not require more labor than that of corn, and if ten or twenty times the quantity can be grown on the same space of ground, we would ask those who are in the habit of sustaining their cattle through the winter on corn, to stop for a few minutes and calculate how much they would save by substituting the ruta-baga in its place.

ECONOMY OF PROVENDER.

A subscriber in Frederick county, Md., having addressed to us the request contained in the subjoined extract of a letter, we shall after giving it a place proceed to state our views upon the subject to which he has called our attention:

"I have a large stock of cattle, and to keep them in good condition during the winter and carry them through on the feed I have provided, will require it to be fed to the best possible advantage—My feed consists of corn fodder, hay, straw, ruta-baga and turnips. Would it be travelling out of your way to give us in an early number of your paper a good plan of feeding. I have thought of getting a straw cutter, and feeding proportions of hay or fodder and roots mixed, but my neighbors laugh at me and say it will be expense for nothing, as our old plan is best—however as I have 35 head of horned cattle to winter, and in the old way it will require a large quantity of feed to keep them well, if you thought it would pay one, I would get a straw cutter and try your plan of feeding."

In the first place, so far from considering it as "travelling out of our way," to reply to any queries which our subscribers and other agriculturists may deem proper to submit to us, we would respectfully state that it always imparts pleasure to us to respond to all such calls.

Our correspondent observes, that from the large number of stock he has on hand it will require him to feed out the provender he has provided to the best possible advantage,—and he asks us

to submit such a plan as will best comport with a just economy of his feed.

We might comprise our advice in a very brief rule—we might say, “cut your long feed, as hay, straw, corn-stalks, blades, tops, and roots, of all descriptions, and steam them:”—but the generous spirit of inquiry which seems to pervade the mind of our correspondent and subscriber, imposes upon us the pleasing duty of indulging somewhat in detail with respect to the manner of arriving at the desired goal, and the advantage arising from cutting all long feed. In England nearly all the large stock-proprietors use their hay and straw only when cut, and many of them add the labor of steaming to that process, and find their interest in so doing. In this country also we are happy to find that the “old plan” is falling into disuse by many of our most intelligent agriculturists.

Our correspondent says, that his neighbours laugh at him when he talks of getting a cutting box, and insist that the old plan is best. Our advice is, to let those laugh that win, and as a set off to their facetious dispositions, we would remark, that in Mexico where the wooden spade has been used for centuries, it would be more than a man's life would be worth to attempt to introduce one made of iron; but this imperturbable adherence to the prejudices of ages—this reverence, without wit or reason, for the customs of other days—does not prove that the better instrument is not incomparably superior to the former; nor does it prove that the neighbors of our correspondent are right in adhering to the old fashioned way of wasting fully one-third of the long feed which they give to their cattle.

Does any man doubt that one-third of all the hay, fodder and tops, that are given to cattle are wasted? If he do, let him go to the cow-yard, and his doubts will be removed. But it may be said—“What is not eaten is given to the dung heap.” True; but then, in a period of scarcity, like the present, when there is no certainty that there will be a plentiful supply for either man or beast, the question should not be, “how much provender shall we give to the manure heap?”—but as our correspondent impliedly puts the question—“how shall it be fed to the best possible advantage?”—and in despite of the “laugh” of his neighbors, we will reiterate the assertion—that by cutting his long provender he will save fully one-third, nay, we will go further and say, that by steaming it when cut, he will save at least *two-fifths*, or in other words that the same quantity which on the old plan would sustain *three* head of cattle, will support

five, and that the five will be in better health and condition generally. We are a great advocate for the accumulation of manure by every possible process, consistent with the just and well understood principles of enlightened economy; but although we have uniformly recommended the gathering of leaves and all sorts of refuse vegetable matter, with a view of adding to the quantity which is made on a farm in the customary way, we hold it that the best *alembic* for converting food into manure, is the stomach of the animal.

Let any farmer go into his cow-yard or stable any morning in the week, and examine for himself, and if he do not find that fully the amount of provender which had been given to his stock the over night, as assumed by us, has been wasted, then we will acknowledge our error. Let us see the effect of our plan. By cutting and steaming corn-stalks, corn tops, straw and all other kinds of long feed, is not only rendered palatable, easy of digestion, but every avenue of loss by waste is cut off.

“Ah! but it is very laborious to cut so much provender!” we think we hear the advocates of the “old plan” ejaculate—and we fain would ask them, if they can tell us what is the amount of all this so much dreaded labor? And here we would further ask, to be permitted to answer the question ourself. A *Cylindrical Straw-cutter*, which will cost \$30, propelled by hand power, will cut in a day from 300 to 500 bushels, according to the industry and physical capacity of the hand engaged in the labor,—so that with a proper economy of time all the cutting could be done by the hands when they could not do out-door work—thus taking away from the plan we recommended, nearly all the difficulty, which, in the opinion of the advocates of the “old plan,” it is enveloped.

To show the advantages which will result, we will subjoin Mr. Benjamin Hale's account of the savings made by him in the use of Straw-cutters, employed to cut hay and straw as fodder for horses. This gentleman was at the time proprietor of a line of stages running between Newburyport and Boston. This statement was submitted by him to the Board of Trustees of the Massachusetts Agricultural Society, who were informed by Mr. Hale that he used no more grain from October, 1816, to April, 1817, than was used from April, 1816, to October, 1816.

[Mr. Benjamin Hale's account of the savings made by the use of Straw cutters, employed to cut hay and straw as fodder for horses.]

The whole amount of hay purchased from April 1, to Oct. 1, 1816, six

months, and used at the stage stable was 32 tons, 4 cwt. 0 qr. 10 lbs. which, at \$25 per ton, was \$800 00

From Oct. 1, 1816, to April 1, 1817, whole amount of hay and straw purchased for, and consumed by the same number of horses, viz:

	T.	cwt.	qrs.	lbs.	cost.
Straw,	16	13	3	10	\$160 23
Hay,	13	14	1	00	350 00

\$510 23

Deduct amount on hand Apl. 1, 1817, 4 tons more than there was Oct. 1, 1816, at \$25 per ton } 100 00

410 23

Saving by the straw-cutter at Newburyport,

\$389 77

Whole amount of hay used for the horses of the Salem stage, 25 in number, from April 1, to Oct. 1, 1816, viz:

	tons.	cwt.	qrs.	lbs.	cost.
	22	0	0	0	\$660 00
T.	cwt.	qrs.	lbs.	cost.	
Straw,	15	13	0	0	\$187 80
Hay,	2	15	0	0	81 00

268 80

Saving in using chopped fodder five months

\$391 20

RECAPITULATION.

Saving in using the straw-cutter 9 months, viz:
At Newburyport, 4 months, \$389 77
At Salem 5 “ 391 20

Total saving in 9 months, \$780 97

Here is a fact which is worth all the theories in the world; but the saving was not carried as far as it ought and might have been; for if the grain fed had also been reduced to meal, fully one third of the quantity fed out during these nine months might have been saved, as it is an incontrovertible truth that two-thirds of the usual quantity of corn or oats fed in the unbroken grain mill, when reduced to meal, answer a better purpose than when the whole quantity is given as before premised.

The suggestion which our Correspondent makes of his intention of cutting his roots and mixing them with his hay, fodder and straw when cut, is an excellent one, and will render his food most acceptable indeed to his cattle.

We hope he will not stop in merely cutting and mixing his long and root provender; but that he will carry his enlightened experiment still further, and submit his feed when thus prepared to the action of steam. If he has no suitable fixtures and is indisposed to get them, let him prepare a long box with a tight cover, and by simply pouring on boiling water and closing the lid, he may, without much expense, secure to himself much of the advantages of steaming.

While we are upon this subject we would remark, that those who feed their horses with corn, should by all means cause it to be crushed in the ear, and thus render the *cob*, as well as the *kernel* an eatable substance: and should they apply the mass thus made to the action of steam, they will find that the same quantity of *kernel* and *cob* will answer for the feed of a horse as is now given of the *kernel* alone.

WINCHESTER MEASURE.

The following on the subject of *measures*, we copy from the "*Southern Times*," published at Columbus, South Carolina, and although the case complained of is *local*, yet as the rules laid down by the writer to ascertain *quantities*, are plain and easily understood, and there are twelve out of the thirteen original States, which still adhere to the *Winchester measure*, we insert the article under the belief that it will be found eminently useful to agriculturists generally.

BUSHEL AND HALF BUSHEL.

SIR:—Some time ago I bought in this town a half bushel measure branded S. B. 1835. It measured 11 inches and a quarter, in diameter, (inside measure) and 7 inches and three quarters in depth. It contained therefore 770 cubic inches and one third. But it *ought* to have contained 1075 cubic inches, and was therefore more than one fourth deficient in size.

To any person acquainted with figures this is plain. The area of a circle whose diameter is $11\frac{1}{4}$ inches, is 99, 4 inches; which multiplied by 7, 75 is 770, 35.

By express statutory enactment in all the old thirteen States, New York excepted, the dry measure bushel is to be eighteen inches and a half inside diameter, and eight inches deep; and it shall contain 2150, 42 cubic inches: hence the half bushel must contain by law 1075 cubic inches, whereas the half bushel in use in Columbia according to my specimen, contains but 770.

I presume the store-keepers buy and sell by the same measure, so that they are out of the question: but it is surely a public grievance which the public authorities ought to rectify, if the inhabitants receive the bulk of 770 instead of 1075. Ought not the Intendant and Town Council to put this to rights? They possess, I believe, a copper bushel, but for what purpose I know not. The matter complained of is surely worth their attention.

I have said that by the law of England, the only measure for corn and grain, was the Winchester bushel of $18\frac{1}{2}$ inches in diameter by 8 inches deep, containing 2150 cubic inches. The acts of Parliament enforcing the use of the Winchester bushel, and prohibiting every other measure for corn, are 22 Ch. 2, ch. 8, 22 and 23 Ch. 2 ch. 12. In 4 term rep. 750 and 5 term rep. 353, it is decided that no local usage will justify the selling of grain by any other measure than the Winchester bushel or its aliquot parts. The Colonies adopted the same measures, and the old thirteen States also, by express law have done the

same. About 7 or 8 years ago New York chose to have its own peculiar weights and measures, and altered the old corn bushel, but no other State followed her example.

By Sect. 1, of Act of Assem. of South Carolina, April 8, 1710 the standard of all measures used in Carolina is to be conformable to the measures of England; and by Sect. 2, any person who shall keep or use any weights or measures than such as are marked by the public officer, shall forfeit ten pounds. The mark is directed to be

§§§
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x

By act of Assembly of South Carolina, 12th April, 1768, made perpetual by Section 1, of act of Assembly of 12th March, 1783, it is ordained that the bushel measure, the half bushel, peck and half peck, shall be made according to the standard of London, that is, the Winchester measure ordained by act of Parliament. Also, that each measure shall be made of cedar wood, neatly shaped, and handled with iron.

The English Parliament in 1825, 5 Geo. 4 ch. 74, altered all the old weights and measures of that Kingdom, and established what are called the imperial weights and measures. The old Winchester gallon (our legal gallon at this moment for dry measure) contained 268, 8 inches, which multiplied by 8 gives 2150, 4 for the bushel. The imperial gallon now contains 277, 274 cubic inches, and the imperial bushel 2218, 192 cubic inches. But no State in the Union has adopted the imperial measure, or changed its old Winchester bushel of 2150 cubic inches, New York excepted. By act of Assembly of South Carolina, of 17th March, 1785, the several Justices of the County Courts of this State, shall have full power and authority to regulate weights and measures within each of their respective jurisdictions, and shall enforce the observance thereof under such penalties as are provided by law for that purpose. As the Circuit Judges have succeeded to the power and jurisdiction of the County Court Justices, application may be made to the Circuit Court by the Town authorities. Or, as every Corporation may make a by-law in harmony with and in support of the laws of the land, the Intendant and Town Council, I apprehend, may lawfully enforce the existing acts of Assembly by a by-law prescribing the most convenient means of doing so.

The nearest approximation to the legal contents of the Winchester bushel, will be a round measure 13 inches and one sixteenth of an inch inside diameter, and 8 inches deep. This will be within about a cubic inch of 1075.

A BUYER.

From the Silk Manual.

PROGRESS OF SILK CULTURE IN THIS COUNTRY.

The success which has so far generally attended the efforts that have been made by individuals, who have taken hold of the work in right good earnest, to introduce the culture, and manufacture of Silk among us, certainly gives fair and encouraging prospects of ultimate and not very far distant success. Is it asked what has been done? Look at the enterprise at Nantucket, where already silks of fine texture, comparing with the

finest of European produce, have been manufactured, and on a Power-loom of purely American ingenuity, the *second one in the world*, used for the purpose of manufacturing Silk Stuffs—the first being at Providence, under the direction of the Silk Company there. Look at the Company at Framingham, in successful operation. That at Dedham, and at Northampton; at both of these places, factories are building, and their plans nearly completed to commence extensive operations. At Woburn a company has been formed with a large plantation of Mulberries under successful cultivation. There are some others in this state, and many at other States, all, as far as we can learn, prospering remarkably and beyond expectation. We will not forget to mention the Connecticut Silk Company. By its liberal policy hundreds of indigent persons, male and female, are taught, free from charge, in the mystery of reeling and spinning silk, and thus hundreds are placed in comfortable situations, and pass their days in industry, content and independence, who otherwise might have lived in poverty and indolence.

And individual enterprise has been lending a powerful aid to advance the business. Mr. Cobb almost unaided and alone, for more than ten years has been devoting his time and money for the interest of the cause. The venerable Du Ponceau of Philadelphia, and our patriotic Dearborn, have for a series of years, been investigating the subject, and laying the result of their research before the people. Whitmarsh of Northampton, whose splendid establishment is well known, is another that had faith and embarked his fortunes in the silk business, looking forward to the time when it should assume a character and an importance for his remuneration, and well has he reaped. Adam Brooks, of Scituate, has invented several machines; his Silk spinner and twister is well known and is probably the best in the country. Mrs. Brooks is an adept in the art of making sewing silk, and weaving. We passed a very pleasant hour at her hospitable mansion a few days since and were delighted with the specimens of her *workmanship*, which she unfolded for our examination. Silk handkerchiefs, articles for vestings, for dresses, of the finest texture, beautiful hose, and gloves, and sewing silk, which is eagerly sought for on account of its superior strength. It is Mrs. B's. intention to manufacture this fall a piece of plush, &c. Her machinery is carried by horse-power.

We were highly gratified during a brief stay at New Haven, last June, in visiting the grounds of Mrs. A. M. Wharton, (late Reddie.) We had heard much of Mrs. W's. success in the culture of silk and expected to be gratified in our visit to her establishment. But we were really astonished at the extent, and excellence of her arrangements.

There is a cocoonery of generous dimensions, arranged in the most appropriate manner for the accommodation of the worms, in which are now upwards 800,000, most in the last age, and ready to spin. [Since the above was written the Silk Culturist for August has come to hand which contains the following.

SILK CULTURE.

We have seen notices that Mr. Du Bouchet,

late from France, had commenced the business of raising the Silk Worm in the western part of the city; but did not suppose the establishment to be one of much importance until we attended the exhibition of the winding up of the cocoons, held a few days since. He has a large two story wooden building erected for the purpose, where he has fed worms and raised about two millions of cocoons this season, and attached to the building has a very large nursery, of the mulberry, by means of which he intends to prosecute the business more extensively.

We understand from Mr. D'B. that he has the most improved and best machinery for reeling the silk, &c. He says the soil in this neighborhood is highly advantageous for raising the mulberry, and that there is no better location for carrying on the business extensively and profitably. He wishes some of our enterprising citizens to form a company for the purchase of lands and the erection of suitable buildings and convenience for carrying on the business in the best and most profitable manner; the company he would have so formed as to secure the interest of the stockholders in the property, and the avails of business.—He thinks he can convince any individual that it would be a very profitable investment of funds. We hope our citizens will not hesitate to afford pecuniary encouragement to an enterprise which promises to add wealth and importance to the town.]

Several hands find constant employ in gathering the leaves, and feeding the worms, all under the direction of M. Cha's Du Bouchet, a gentleman from France, well skilled in all the manipulations pertaining to Silk Culture, and the manufacture of Silk. The arrangements do credit to him. He has been eminently successful in bringing forward his worms, such a vast number of them, so early, against all the disadvantage of a backward, and very unpropitious season.

Mrs. W. has on her farm about 15,000 white mulberry trees, and on her grounds adjacent to the mansion house about 5,000, with several thousand of the Chinese or *Morus Multicaulis* trees.

With a great many others Mrs. W. has suffered from the gross impositions practiced in Canton, in the shipment of seeds to this country, purporting to be what they are not,—“true and genuine *Morus Multicaulis* Seed.” It is too bad that our enterprising citizens are to be thus fooled with. It is of immense injury in the loss of ground, loss of time, disappointment, and loss of money, which, at from seventy-five to four hundred and fifty dollars a pound for the seed, is not a small amount.

Cannot some measures be adopted whereby a recurrence of this cheat may be avoided?

Mrs. W. informed us that she will have seed this year, from true stock, and which can be depended upon. This is a gratifying fact. When the trees begin to produce seed in this country, we may with certainty calculate upon having enough to supply a moderate demand in a very short time, and not be subject to the dishonest tricks before alluded to.

There are many others whose names are not at hand, who have with a commendable spirit of liberality, contributed to introduce the business, and excite an interest in it. Enough has been

shown, however, to satisfy any one that in a few short years, the silk business in all its various branches will be second to none in the Union.

GLEANINGS IN HUSBANDRY, AND ITEMS OF ECONOMY.

BY THE EDITOR OF THE N. E. FARMER.

On Preserving Vegetables.—The preservation of vegetables for future use is effected by destroying or rendering dormant the principle of life, and by warding off, as far as practicable, the progress of chemical decomposition. When vegetables or fruits are gathered for use or preservation, the air of the atmosphere which surrounds them is continually depriving them of carbon, and forming the carbonic acid gas. The water they contain, by its softening qualities weakens the affinity of their elements; and heat produces the same effect by dilating their parts, and promoting the decomposing effect both of air and water. Hence drying in the sun or in ovens, is one of the most obvious modes of preserving vegetables for use as a food, or for other purposes, but not for growth if the drying process is carried so far as to destroy the principle of life in seeds, roots or sections of the shoots of ligenous (woody) plants. Potatoes, turnips, and other esculent roots may be preserved from autumn to the following summer, by burying them in perfectly dry soil which shall be at the same time at a temperature but a few degrees above the freezing point. Corn [grain] may be preserved many years by first drying it thoroughly in the sun, and burying it in dry cool pits, and enclosing these so as effectually to exclude the atmospheric air. In a short time the air within is changed to carbonic acid gas, in which no animal will live, and in which, without the addition of oxygen or atmospheric air, no plant or seed will vegetate. The corn is thus preserved from decomposition, from insects, vermin, and from vegetation, in a far more effectual manner than it can be in a granary. In this way the Romans preserved their corn in chambers hewn out of dry rock, the Moors in the sides of hills, the Chinese at the present time in deep pits of dry soil, and the aboriginal natives of Africa, in earthen vessels hermetically sealed. The origin of these practices are all obvious imitations of what accidentally takes place in nature, from withered grassy tussocks to the hedgehog's winter store; and hence the origin of herb, seed and root rooms and cellars, and packing plants and seeds for sending to a distance.—*Enc. of Agr.*

Jerusalem Artichoke.—This plant is in a peculiar manner fitted to grow under the shade. It can, therefore be cultivated in woods; and it is sometimes sown in England to show shelter for game; the plants being left to reproduce themselves annually from tubers.

Taking into account the hardy qualities of this plant, its productiveness and easy culture, it may be doubted whether it merits the universal neglect into which it has fallen. Granting its inferiority as an article of food to the plants now cultivated for our domestic stock, it must be of some importance to have a plant that can be so easily raised and on soils so low in the scale of fertility.

To keep off or drive away Bed Bugs.—Make a strong decoction of red pepper, when ripe,

and apply it with a common paint brush to the joints of the bedstead, wainscoating, &c. where these insects resort, and it will kill or expel them.

Warm water for Cows.—It has been said that cows will give the more milk in cold weather in consequence of having water which they drink made a little warm.

Method of preserving young trees from being injured by Hares or Rabbits.—By William Paterson, Esq. of Iberdeen, Kent, Eng.

Hares, rabbits and rats have a natural antipathy to tar; but tar, though fluid, contracts (when exposed to the sun and air for sometime) a great dryness, and very binding quality; and if applied to trees in its natural state will occasion them to be bound. To remove the difficulties, tar is of so strong a savor, that a small quantity mixed with other things in their nature loose and open, will give the whole mixture such a degree of its own taste and smell, as will prevent hares, &c. from touching what it is applied to.

Take any quantity of tar, and six or seven times as much grease, stirring and mixing them together; with this composition brush the stems of young trees, as high as the hares, &c. reach, and it will effectually prevent their being barked. I believe if a plantation of ash, (which they are very fond of,) were made in a rabbit warren, this mixture would certainly preserve it. These animals do great mischief amongst flowering shrubs, and are particularly fond of Spanish broom, Scorpion Senna, and evergreen Cystissus. I have had those shrubs eaten down to a stump, but as the mixture cannot well be applied to them, I have enclosed their branches with a new tar twine, putting it several times round the shrub, which has had the desired effect. Tar twine by being exposed to the air and rain, will lose its smell, consequently must be renewed as occasion requires; but the mixture is always to be preferred where it can be useful.

Note by the Editor of N. E. Farmer.—It is probable that the above mentioned composition would preserve young trees in nurseries from the depredation of mice, moles, &c., which are often fatal to young fruit trees, &c. in many parts of the United States.

[From the Saturday Courier.]

CIDER.

Messrs. Editors: Wishing to obtain some information on the subject of making Cider, I have been obliged to address you on the subject, in hopes that you could procure me a recipe for the preservation of that beverage. If you can send me one that will answer the purpose, I should be very thankful, besides paying for the same. I wish you to answer this immediately, and let me know what information you can get on the subject, and very much oblige your friend and subscriber,

Staubenville, Ohio, Sept. 14, 1836.

Always desirous of obliging our country friends, and thinking, besides, that the manner of making and preserving cider to the best advantage, might be a subject of very general interest, we have taken some pains to answer the foregoing

epistle from our Ohio correspondent. Our city refiners are generally very tenacious of any particular advantage they may possess in the way of improving and preserving liquors, and place so high an estimate on the value of their particular "art and mystery," that the first cider monger, to whom we made application, actually had the modesty to ask us five hundred dollars for such information as we asked for. Our friend Kerrison, however, whose bottling establishment at the Exchange has long been celebrated for cider of peculiar soundness and exquisite flavor, has in a spirit of liberality, for which our country friends will no doubt feel greatly indebted to him, furnished us with the following recipe, in reply to our correspondent.

In addition, we take the liberty of adding a few suggestions which may be of service. An experienced writer insists that the apples should always be picked by hand, and those that are unsound should be thrown out, as well as those that have laid so long on the ground as to acquire an *earthy* taste, which is otherwise invariably imputed to the cider. The bruised and inferior apples should be placed in a heap by themselves for making an inferior cider for vinegar. In pressing the pumice, hair-cloth should be used instead of straw, as the straw, when heated, gives a disagreeable taste to the cider, and in running from the press, the cider should pass through a hair-sieve.

KERRISON'S RECIPE FOR CIDER.

The following rules for preserving cider, will apply to good cider only, for you cannot preserve bad cider. Let it be made of good sound winter apples in cool weather, in the month of November or December, and *let no water be mixed with it*. Put it into clean hogsheads, (whiskey hogsheads lately emptied are best) and keep it in a place invariably cool. Fermentation carries off the strength of the cider; therefore prevent it from fermenting as much as possible. When it exhibits a violent degree of fermentation, put in a half gallon of 4th proof rectified apple whiskey; if this does not stop it, put in another half gallon: the same quantity of pure French brandy will answer where it can be had. As soon as the fermentation has subsided and the crude particles settled down, rack it off into a clean hogshead. After this, the cider will undergo a partial fermentation; when it is observed to ferment, and after it has subsided, rack it off again as before. If the crude particles are allowed to remain in the hogshead, they will work up among the cider during every fermentation, and injure it. When it is being racked off, it should be allowed to run with force into a large tub, and pumped from the tub into the hogshead; this serves to break the cider, and is highly beneficial during the first and second racking. Every time it is racked, it must be bunged up tight, and the hogshead kept full; but during the fermentation, the bung should be left out. There are other methods of refining and preserving cider, which are shorter and more certain, but cannot be pursued by farmers with advantage. The above method will be found to answer all domestic purposes.

Soda for washing—This is one of the improvements of the day which any one may practice

without incurring additional expense for machinery or patent rights. The practice was introduced into this country only a year or two since, and so well has it been approved of that it has been introduced very generally, with complete success. We published the recipe about a year since, but as we have lately had several applications for it, we again insert it, well knowing that the thanks we shall get of those who have to toil hard at least one day in the week, will amply repay us for our pains.

In the first place put in the wash-kettle five gallons of soft water, add a pint and a half of soft soap, and two ounces of sub-carbonate of soda. [Some add to this half a gallon of lime-water, but most families now dispense with it.]

The clothes should be put into clean water over night; and when the above mixture is at the boiling heat, put in the clothes, merely rubbing such parts with a little soap as are much soiled. Boil them one hour. They are then to be taken out and drained, rubbed and rinsed in warm water, then in the indigo water as usual, and they are fit for drying.

They can be washed in this manner with a saving of about half the soap commonly used, and of more than half the labor. The expense of the soda is only ninepence a pound, and may be found at the apothecaries.

THE AMERICAN FARMER.

BY NICHOLAS BIDDLE.

From an address before the Philadelphia society for promoting Agriculture.

If I have failed to prove that the pursuits of agriculture may be as lucrative as other employments, it will be an easier task to vindicate their pleasure and their importance. I need not dwell on that retirement, one of the purest enjoyments of this life, and the best preparation for the future, on those healthy occupations, on that calmness of mind, on that high spirit of manliness and independence, which naturally belong to that condition. These are attractions which must have deep roots in the human heart, since they have in all times fascinated at once the imagination, and won the judgment of men. But I may be allowed to say, that in this nation, agriculture is destined to attain its highest honors, and that the country life in America ought to possess peculiar attraction—the pure and splendid institutions of this people have embodied the highest dreams of those high spirits, who in other times and in other lands, have lamented or struggled against oppression; they have realized the fine conceptions which speculative men have imagined, which wise men have planned, or brave men vainly perished in attempting to establish. Influence in reclaiming the lost dignity of man, and inspiring the loftiest feelings of personal independence, may be traced in every condition of our citizens; but as all objects are most distinct by insulation, their effects are peculiarly obvious in the country.

The American farmer is the exclusive, absolute, uncontrolled proprietor of the soil. His tenure is not from government. The government derives its power from him. There is above him nothing but God and the laws; no hereditary authority usurping the distinctions of personal

genius; no established church spreading its dark shadow between him and heaven. His frugal government neither desires nor dares to oppress the soil, and the altars are only supported by the voluntary offerings of sincere piety. His pursuits, which no perversion can render injurious to any, are directed to the common benefit of all. In multiplying the bounties of Providence in the care of the inferior animals committed to his charge, he will find an ever varying and interesting employment, dignified by the union of simple and generous hospitality. His character assumes a loftier interest by its influence over the public liberty.

It may not be foretold to what dangers this country is destined, when its swelling population, its expanded territory, its daily complicating interests shall awake the latent passions of men and reveal the vulnerable points of our institutions. But whenever these perils shall come, its most steadfast security, its most firm reliance will be on that column of land proprietors—the men of the soil and of the country. * * * * * These men, powerful like their own forests, may yet interpose between the factions of the country, to heal, to defend, and to save.

ON THE FEEDING AND MANGEMENT OF MILCH COWS.

It is of great consequence in the management of a dairy that the cows should be treated with gentleness, so that they may not be afraid of being milked or dislike the milker. A cow will not yield her milk willingly to one she fears, hates, or apprehends ill treatment from. Young cows particularly may have their character for gentleness and good milkers formed by the manner in which they are treated. This truth, of much importance to all concerned in a dairy or its products, is well established and illustrated by a communication from Mr. Russel Woodward published in Memoirs of the New York board of Agriculture, in substance as follows.

Having formerly kept a large number of cows I observed many amongst them dried up their milk so early in the fall that they were not profitable, while others with the same keeping, gave milk plenty until late in the season. I likewise have often heard my neighbors observe, that some of their cows, though very good in the fore part of the season, dried up their milk so early that they were unprofitable, and they would have to put them off; I accordingly found it expedient to find out the cause, if possible; and when I brought to mind the way some of my young cows had been kept and milked, I attributed the cause to the milking of them the first season they gave milk; and by many experiments since, I have found that young cows, the first year they gave milk, may be made, with careful milking and good keeping, to give milk almost any length of time required, say from the first of May to the first of February following, and will give milk late always after with careful milking. But if they are left to dry up their milk each succeeding year, if they have a calf every year, the same season of the year—and nothing but extraordinary keeping will prevent it, and that but a short time. I have had them dry up their milk in August, and could not by any means make them give milk much past that time in any suc-

ceeding year. I had two heifers which had calves in April, and after getting them gentle, I set a boy to milk them for the season, (which is often done the first season on account of their having small teats,) he was careless and dried them both up in August. Although I was satisfied I should lose the greater part of the profit of them afterwards, yet I took it upon me the following year to milk them myself and give them good feed, but to no purpose. I could not make them give milk much past the time they dried the year before. I have two cows now that were milked the first year they had calves, until near the time of their calving again, and have continued to give milk as late ever since, if we will milk them.—*Gen. Far.*

SCIENCE OF AGRICULTURE.

IMPROVING THE BREEDS OF ANIMALS.

By improving of a breed, is to be understood the producing such an alteration in shape or description as shall render the animal better fitted for the labors he has to perform; better fitted for becoming fat; or for producing milk, wool, eggs, feathers, or particular qualities of these. The fundamental principle of this amelioration is the proper selection of parents. Two theories have obtained notice on this subject, the one in favor of breeding from individuals of the same parentage, called the *in and-in* system, and the other in favor of breeding from individuals of two different offsprings, called the system of *cross-breeding*.

That the breed of animals is improved by the largest males, is a very general opinion, but this opinion is the reverse of the truth, and has done considerable mischief. The great object of breeding by whatever mode, is the improvement of form, and experience has proved, that crossing has only improved, in an eminent degree, in those instances in which the females were larger than in the usual proportion of females to males, and that it has generally failed where the males were disproportionably large. (*Cully's Introduction, &c.*) The following epitome of the science of breeding is, by the late eminent surgeon, HENRY CLINE, who practised it extensively on his own farm at Southgate.

The *lungs* are of the first importance. It is on their size and soundness that the strength and health of animals principally depends. The power of converting a given quantity of food into more nourishment than one with smaller lungs; and therefore has a greater aptitude to fatten.

The *chest*, according to its external form and size, indicates the size of the lungs. The form of the chest should approach to the figure of a cone, having its apex situated between the shoulders, and its base towards the loins. Its capacity depends on its form more than on the extent of its circumference; for where the chest is equal in two animals, one may have much more than an elipsis of equal circumference; and in proportion as the elipsis deviates from the circle, it contains less. A deep chest, therefore, is not capacious, unless it is proportionably round.

The *pelvis* is the cavity formed by the junction of the haunch bones with the bone of the rump. It is essential that the cavity should be large in the female, that she may be enabled to bring

forth her young with less difficulty. Where the cavity is small the life of the mother and her offspring are endangered. The size of the pelvis is chiefly indicated by the width of the hips, and the breadth of the waist, which is the space between the thighs. The breadth of the loins is always in proportion to that of the chest and pelvis.

The *head* should be small, by which the birth is facilitated. Its smallness affords other advantages, and generally indicates that the animal is of a good breed. Horns are useless to domestic animals, and they are often a cause of accidents. It is not difficult to breed animals without horns. The breeders of horned cattle and horned sheep, sustain a loss more sensible than they conceive; for it is not the horns alone, but also much bone in the skulls of such animals to support the horns, for which the butcher pays nothing: and besides this there is an additional quantity of ligament and muscle in the neck, which is of small value. The skull of a ram with horns, weighed five times more than a skull which was hornless. Both these skulls were taken from sheep of the same age, each being four years old. The great difference in weight depended chiefly on the horns, for the lower jaws were nearly equal; one weighing seven ounces, and the other six ounces and three quarters, which proves that the natural size of the head was the same in both, independent of the horns and the thickness of the bones which support them. In horned animals the skull is extremely thick. In a hornless animal it is much thinner, especially in that part where the horns usually grow. To those who have reflected on the subject it may appear of little consequence whether sheep and cattle have horns, but on a moderate calculation it will be found, that the loss in farming stock, and also in diminution of animal food, is very considerable, from the production of horns and their appendages. A mode of breeding which should prevent the production of these would afford a considerable profit in an increase of neat wool, and other valuable parts.

The *length of the neck* should be proportioned to the height of the animal, that it may collect its food with ease.

The *muscles*, and the tendons, which are their appendages, should be large; by which an animal is enabled to travel with greater facility.

The *bones*, when large, are commonly considered an indication of strength; but strength does not depend on the size of the bones, but on that of the muscles. Many animals with large bones are weak, their muscles being small. Animals that have been imperfectly nourished during their growth, have their bones disproportionably large. If such deficiency of nourishment originate from a constitutional defect, which is the most frequent cause they remain weak during life. Large bones, therefore, generally indicate an imperfection in the organs of nutrition.

To obtain the most approved form, the two modes of breeding described as the *in-and-in* and crossing modes have been practised. The first mode may be the better practice, when a particular variety approaches perfection in form; especially with those who may not be acquainted with the principles on which improvements de-

pends. When the male is much larger than the female, the offsprings are generally of an imperfect form. For instance, if a well formed large ram be put to ewes proportionately smaller, the lambs will not be so well shaped as their parents; but if a small ram be put to large ewes, the lambs will be of an improved form. The proper method of improving the form of animals consists in selecting a well formed female proportionately larger than the male. The improvement depends on this principle that the power of the female to supply the offspring with nourishment is in proportion to her size, and to the power of nourishing herself from the excellence of her constitution. The size of the fœtus is generally in proportion to that of the male parent; and therefore, when the female parent is proportionably small the quantity of nourishment is deficient, and her offspring has all the proportions of a starveling. But when the female, from her size and good constitution, is more than adequate to the nourishment of a fœtus of a smaller male than herself, the growth must be proportionably greater. The larger female has also a larger quantity of milk, and her offspring is more abundantly supplied with nourishment after birth.

Abundant nourishment, is necessary to produce the most perfect formed animal, from the earliest period of its existence until its growth is complete. As already observed, the power to prepare the greatest quantity of nourishment from a given quantity of food, depends principally on the magnitude of the lungs, to which the organs of digestion are subservient. To obtain animals with large lungs, crossing is the most expeditious method; because well formed females may be selected from a large size, to be put to a well formed male of a variety; that is, rather smaller. By such a mode of crossing, the lungs and heart become proportionately larger, in consequence of a peculiarity in the circulation of the fœtus, which causes a larger proportion of the blood, under such circumstances to be distributed to the lungs, than to the other parts of the body; and as the shape and size of the chest depend upon that of the lungs, hence arises that remarkably large chest, which is produced by crossing with females that are larger than males. The practice, according to this principle of improvement, however, ought to be limited, for it may be carried to such an extent, that the bulk of the body might be so disproportioned to the size of the limbs as to prevent the animal from moving with sufficient facility. In animals, where activity is required, this practice should not be extended so far as in those which are intended for the food of man.

The *characters of animals*, or the external appearances by which the varieties of the same species are distinguished, are observed in the offspring; but those of the male parent more frequently predominated. Thus in the breeding of horned animals there are many varieties of sheep and some cattle, which are hornless. If a horned ram be put to horned ewes, almost all the lambs will be hornless; partaking of the character of the male more than of the female parent. An offspring without horns, or rarely producing horns, might be obtained from the Devonshire cattle, by crossing with bulls of the Galloway

breed; which would often improve the form of the chest, in which the Devonshire cattle are often deficient.

Examples of the good effects of crossing, may be found in the improved breeds of horses and swine in England. The great improvement in the breed of horses arose from the crossing with the diminutive stallions, Barbs and Arabians; and the introduction of Flanders mares into the country was the source of improvement in the breed of cart horses. The form of swine has been greatly improved, by crossing with the small Chinese boar.

Examples of the bad effects of crossing a breed are more numerous. When it became the fashion in London to drive large bay horses, the farmers in Yorkshire put their stallions to much larger mares than usual, and thus did infinite mischief to their breed by producing a race of small-chested, long-legged, large-boned, worthless animals. A similar project was adopted in Normandy, to enlarge the breed of horses there, by the use of the stallions from Holstein; and in consequence the best breed of horses in France would have been spoiled, had not the farmers discovered their mistake in time, by observing the offspring much inferior in form to that of their native stallions. Some graziers in the isle of Sheppy conceived that they would improve their sheep by large Lincoln rams; the produce of which, however, was much inferior in the shape of the carcass and the quantity of the wool; and the flocks were greatly impaired by this attempt to improve them. Attempts to improve the animals of a country by any plan of crossing, should be made with the greatest caution; for by a mistaken practice, extensively pursued, irreparable mischief may be done. In any country where a particular race of animals has continued for centuries, it may be presumed that their constitution is adapted to the food and climate.

It may be proper to improve the form of a native race, but at the same time it may be very injudicious to attempt to enlarge their size; for the size of animals is commonly adapted to the soil and climate which they inhabit. Where produce is nutritive and abundant, the animals are large; having grown proportionally to the quantity of food which for generations, they have been accustomed to obtain. Where the produce is scanty, the animals are small, being proportioned to the quantity of food which they were able to procure. Of these contrasts, the sheep of Lincolnshire and of Wales are samples. The sheep of Lincolnshire would starve on the mountains of Wales.

Crossing the breeds of animals may be attended with bad effects in various ways; and that even when adopted in the beginning on a good principle; for instance, suppose some larger ewes than those of the native breed, were taken to the mountains of Wales, and put to the rams of that country; if these foreign ewes were fed in proportion to their size, their lambs would be of an improved form, and larger in size than the native animals; but the males produced by this cross, though of good form, would be disproportionate in size to the native ewes: and, therefore, if permitted to mix with them, would be productive of a starveling, ill-formed progeny. Thus a cross, which a first

was an improvement, would by giving occasion to a contrary cross ultimately prejudice the breed. The general mistake in crossing has arisen from an attempt to increase the size of a native race of animals; being a fruitless effort to encounter the laws of nature.

From theory, from practice, and from extensive observation, the last is more to be depended on than either; 'it is reasonable,' Cline continues, 'to form this conclusion: it is wrong to enlarge a native breed of animals, for in proportion to their increase of size, they become worse in form, less hardy, and more liable to disease. [Communications to the B. of Agriculture, Vol. IV. page 446.]

A machine, on a new principle, for raising Coals, Water, &c.—"The construction of this power is very simple, and its steady operation is quite assured. Its chief agent is a pair of wheels, or, if necessary, a series, moving with their diameters in the direction of the weight to be used—say the shaft of a mine. Taking the one pair of wheels, moving on the same fixed axis, we find that from the end of a radius or arm in each a chain descends, so as to hang on opposite sides of a square passage. To each chain are suspended, at different but regular distance quadrangular frames, to the upper sides of which strong projecting iron arms, moving on the principle of the hinge, are attached; the boxes, or receptacles for the weight to be raised, have corresponding edges on each side. When the wheel above is turned, and a single box below is placed in connexion with the lowest frame, it is caught by its rim, and with one revolution of the wheel is sent up as high as the frame on the opposite side to that on which it is borne; here it is again caught and sent up to the apparatus on the opposite side again; and so on, by alternate transmission, it is brought to the top of the shaft—the machine being kept constantly laden below, and its wheel constantly turned above, it follows that at each revolution of the wheel a box is delivered; and thus, in an exceedingly short space of time, a vast body of matter can be carried up through any depth of shaft. [The rising of water is performed by means of the same machinery, only buckets with valves in the bottom are used instead of boxes.] The machine could be most humanely employed, in great mines, in quickly sending the workmen up or down, to save them from their present tedious and tiresome expedients for that purpose."]

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Notice of cylindrical corn sheller—buckwheat straw—mammoth radish—great product and use of ruta baga—economy of provender—Winchester measure—progress of the silk culture—gleanings of husbandry, &c.—on making eider—soda for washing—the American farmer—on the feeding and management of milch cows—science of agriculture—a machine for raising coals, water, &c.—prices current—advertisements.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

POINTERS FOR SALE.

A thorough bred Pointer Shut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper. no 15 4t

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oct 1

FOR SALE,

Upwards of 200,000 silk-worm eggs.

Address J. A. S. Patriot Office, Baltimore, Md. Sep. 27. 3t.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE.

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1-2 to 4 feet—the 2 feet and 1 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited. se 27

ROBERT SINCLAIR.

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil. R. SINCLAIR, Jr. aug 30 Light near Pratt-st. whf.

FANCY PIGEONS.

THE editor of the Farmer and Gardener, Baltimore, Md. has the following kinds of Fancy Pigeons for sale, which he will dispose of at the prices annexed to each.

Turbots, \$2.50 per pair—Carriers, \$3 per pair—Fan Tails, \$2.50 per pair—Trumpeters, \$2.50—Nuns, black with white heads, and white with black heads, \$2 per pair—Croppers, \$3.50 per pair.

Also 1 dozen pair GERMAN CHICKENS, of all colors, with large top knots. These chickens are not only favorites on account of their beauty, but because of their laying propensities.—Price, \$3 per pair. oct 18

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected for MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	5 75	7 50
CORN, yellow,.....	bushel.	88	90
White,.....	"	85	86
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21—Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	12 50
Do. do. baker's.....	"	—	—
Do. do. Superfine, ex.	"	—	9 75
SuperHow. st. in good de'd	"	10 00	—
" " wagon price,	"	9 50	—
City Mills, extra,.....	"	—	10 00
Do. " " " " " "	"	—	9 75
Susquehanna,.....	"	—	10 00
Rye,.....	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	21 50	—
do. in bbls.	bbl.	4 75	—
GRASS SEEDS, red Clover,.....	bushel.	6 75	7 25
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEME, country, dew rotted,.....	pound.	6	7
" " water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 00	8 25
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	48
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	5 00
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGE,.....	pound.	3	4
RYE,.....	bushel.	110	120
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" " brown and red,....	"	4 50	0 00
" " fine red,.....	"	7 00	7 90
" " wrappry, suitable	"	—	—
for segars,.....	"	5 00	10 00
" " yellow and red,....	"	6 00	8 00
" " good yellow,.....	"	8 00	12 00
" " fine yellow,.....	"	12 00	16 00
Seconds, as in quality,....	"	4 00	5 00
" " ground leaf,....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 25
Red, best,.....	"	2 05	2 13
inferior,.....	"	1 40	1 90
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" " in hhds.....	"	39 1/2	—
" " wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
Wool, Prime & Saxon Fleeces,....	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	28 30
Three fourths Merino,.....	"	42 45	26 28
One half do.....	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,.....	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

A DURHAM BULL FOR SALE.

THE Editor of the Farmer and Gardener has for sale at his residence about two miles from Baltimore on the Philadelphia Turnpike road, a white bull with red spots about the head and neck. He is full blooded and of the improved short horn breed; has given many living evidences of his capacity for service, his calves being large and of the most superior points. His price is \$300.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	25 00	45 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87	2 00
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,.....	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virginia,.....
Other Branches,.....	do	Bank of Virginia,.....
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,.....
Hagerstown,.....	1/2	Norfolk,.....
Frederick,.....	do	Winchester,.....
Westminster,.....	do	Lynchburg,.....
Farmers' Bank of Mary'd, do		Danville,.....
Do. payable at Easton,....	do	Bank of the Valley,....
Salisbury,.... 5 per ct. dis.		Branch at Romney,....
Cumberland,.....	1	Do. Charlestown,....
Millington,.....	do	Do. Leesburg,....
DISTRICT.		Wheeling Banks,....
Washington,.....	1/2	Ohio Banks, generally 3/4
Georgetown,.....	1/2	New Jersey Banks gen. 1 1/2
Alexandria,.....	1/2	New York City,....
PENNSYLVANIA.		New York State,....
Philadelphia,.....	1/2	Massachusetts,....
Chambersburg,.....	1/2	Connecticut,....
Gettysburg,.....	do	New Hampshire,....
Pittsburg,.....	2 1/2	Maine,.....
York,.....	1/2	Rhode Island,....
Other Pennsylvania Bks. 1 1/2		North Carolina,....
Delaware [under \$5]....	3/4	South Carolina,....
Do. [over 5]....	1 1/2	Georgia,.....
Michigan Banks,.....	5/8	New Orleans,.....
Canadian do.....	5/8	

MORUS MULTICAULIS. FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Root's and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON E. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltimore

sep 27

TWO POINTER PUPS.

FOR SALE, 2 handsome pointer pups, the one 4 the other 2 months old, and both warranted to be of pure strain. The price of the first named is \$10, that of the latter, \$5. oct 18

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved Jacks, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 13 1/2 hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address I. I. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth st. Philadelphia. Philadelphia, Oct. 13th, 1836. oc 25

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herb Grass seed of superior quality.

JONATHAN S. EASTMAN.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, SINCLAIR & MOORE, AND ROBERT SINCLAIR, JR.—EDITED BY E. P. ROBERTS.

No. 30.

BALTIMORE, MD. NOVEMBER 22, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, on the west side of Light near Prattstreet, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, NOV. 22, 1836.

The article in this day's paper on the subject of vegetable philosophy is well written, full of instruction, and will command intense interest from all lovers of agricultural science.

A lady clothed in American silk—At the Agricultural Exhibition of Merrimack county, Mas. Mrs. Kimball of Hopkinton, N. H. was present, robed in rich and durable silks of her own manufacture. She raised the silk worms, reeled, twisted, dyed and wove the silk, and for aught that is known to the contrary, made the garments with her own hands.—*Northern paper*.

Would it not be well to try the experiment in our county. The trouble and expense, even should the experiment fail, will be of but little consequence, compared with the immense advantages, should it succeed; and we cannot permit ourselves to doubt its success if once entered into with spirit. We would consider the person a public benefactor who produces the first skein of silk, or the first pound of beet sugar in our county.—*Winchester (Va.) Republican*.

We published a few weeks since the first of the above paragraphs, and re-insert it with the view of making some brief remarks upon the excellent suggestion of the editor of the *Winchester Republican*. He asks, "would it not be well to try the experiment in our county?" We reply certainly it would not only be well, but that the trial would result in the conviction of its utility, as well as surprise that a people so enlightened and patriotic as those of Virginia, should have remained so long insensible to the advantages to be derived to them from embarking in a branch of agricultural industry so happily adapted to their soil and climate. Possessing as they do, in an eminent degree, all the favored elements for the culture of the Mulberry, which is indigenous to nearly every portion of the state, the wonder is, that they should have permitted their eastern brethren,—who say what you may about their tact,

industry and enterprise, live under the influence of a clime not half so well suited to the raising of silk as is that of the *Old Dominion*,—to outstrip them in a culture at once so full of interest, and offering so many inducements in the way of profit. If the silk business in America was a visionary scheme of some moon-struck theorist—if its practicability had not been demonstrated with mathematical certainty—if its great lucrativeness had not been fully proved by the experiments and practice of hundreds, there might be an apology found for the apathy which prevails—but when there are so many examples of brilliant success to refer to—when we find our calculating brethren of the east—who, to use a Yankee comparison—know the value of a dollar as well as any one else,—bending their energies unceasingly towards it, those who live in a more propitious climate should certainly follow, if they will not lead in a business so replete with hope and so encouraging upon the score of profit. To the lower section of Virginia, where her soil has been robbed of its virgin excellence by a long series of killing-cropping, the silk culture would come like a healing balsom; for it would place an acre of the poorest land upon a footing of more than equality with the richest and most fertile land in the great valley of the Mississippi, as it is a well established fact, that poor sands and gravels make the best silks.

Before we close these remarks it may be opportune to annex the following highly judicious remarks upon the present aspect of the silk culture in the United States.

"The silk culture in our country may no longer be regarded as the pastime of ladies, who, having nothing else to do, have employed their time in raising silk worms, and in winding and reeling the products of their industry. The preparation of this valuable article is becoming rapidly a regular branch of manufacture, employing large capital and returning to those who have embarked in it, a handsome profit for their money and labor. There is at Dedham, Massachusetts, that land of enterprise and industry, a factory which drives sixteen hundred spindles and employs one hundred females, who turn out two thousand dollars worth of silk every week. With a climate adapted to the growth of the food for this valuable operative, and well suited for its existence, we can see no good reason why our

country should remain tributary to other nations for this beautiful and useful product. Millions have gone, year after year, to pay for the stuffs fabricated by foreign industry, which might have been kept at home to great advantage, and we hope that the day is not far distant when Americans will no longer expend their money in supporting the laborers of other countries. Silk, in its raw as well as prepared state, may soon be sent abroad as one of the staple commodities of our commerce, and so far from being a drain upon our wealth, will be a powerful mean of increasing it. Why may we not become in the course of a few years what the French and Italians are at present, and our silks be as celebrated for their lustre and beauty as those of France and Italy."—*Baltimore American*, Nov. 14.

NORTHERN CORN—ARTICHOKES.

Extract from a letter to the editor of the *Farmer and Gardener*, dated

"LOUDBON Co., Va. Oct. 29, 1836.

"During a short visit to the east in the summer of 1834, I procured a few ears of Northern corn, which in the spring of 1835, I planted in a rich bottom in drills of 4 feet, the plants 12 inches apart. The corn is of a deep yellow kind, ears thin and long. I do not now recollect its product, or whether I made any estimate of it at the time; but I know from recollection that I was pleased with it as well on account of its early maturity, as of its yield; and my object in noticing it now is to say that I think in all late springs, it would be the interest of our farmers south of the Delaware to plant this or some other eastern corn of equal character for early maturing. As well as I can charge my recollection with the fact at this date, I think the small patch I made was fit for grinding in somewhat like an hundred days. Now as there has been a great scarcity of other grain crops, would it not be well for planters and farmers generally to put in a portion of their next year's crop of some early kind? I am apprehensive that it would, and thus early beg leave through your paper to call the attention of my brother Southrons to the subject."

"By the way, while I am writing, it strikes me that it would be worth an experiment for the agriculturists of the south to plant in some of their least valuable fields the Artichoke, to turn their hogs into previous to putting them up for fattening. This root, it is known, will grow in shady situations, and in very poor ground, and yield well, and it is equally well known that the hogs take great delight in rooting them up and consuming them."

[Note by the Editor of the *Farmer & Gardener*.

We like both suggestions of our correspondent, but with respect to that relative to Arti-

chokes, we think that any farmer having from 30 to 50 head of hogs would find his interest promoted by planting 2 or 3 acres in potatoes, carrots, parsnips and ruta baga. Either of these quantities of land thus appropriated would yield roots enough to render all *corn-feeding* unnecessary, except so much as might be requisite to *harden* the flesh of his hogs, say 2 bushels to each hog.]

GREAT SALE OF SHORT-HORN DURHAMS.

We record below the *account sales* of the stock of the above breed of cattle imported by "*The Ohio Company for importing English cattle*," which took place at Indian Creek farm, the residence of the Company's agent, in Ross county, Ohio, on the 29th of last month. The prices at which this fine herd of cattle sold, will appear high to those who have been in the habit of estimating the value of cattle at the old standard of native breeds; but those who may be conversant with the estimable qualities of the improved Short-horn Durhams, will know too well how to appreciate them to be surprised at the prices the present lot brought. The western country are now in possession of as fine a stock of neat cattle, the numbers being considered, as are possessed by any other portion of the world. Those which have just been disposed of by this enterprising company, were selected in England from the finest herds, by competent judges, and doubtless comprised the best animals that could be procured in the British empire. We congratulate the generous and patriotic people of the great west upon this solid acquisition to their theretofore noble stock, and we sincerely *trust* that the public spirited agriculturists, who have thus come forward with such true nobility of soul, to reward the thrice laudable enterprize of the Ohio company, will find that their own exertions to improve the stock of their respective sections of country, will meet with a becoming response from their brother farmers. But of that we do not apprehend any doubt; for the success which the *Bulls* that the Ohio Company sent out to service in their own and sister state of Kentucky, the past season, is at once the bond and guarantee that a like good fortune will await the present owners. As far back as May last, we learned that one of the Durham bulls owned by the Ohio Company, which had been sent to Clarke county, Kentucky, for service, had at that early period of the season had 60 cows at \$25 each: and, indeed, our private advices go to show, that all the Durham bulls of unexceptionable pedigrees, both in Ohio and Kentucky, were doing full service at rates ranging from \$10, 15, 20 to \$25 each cow.

Such encouragement was due to the enlightened enterprise which influenced the gentlemen to encounter the expense and risk of importation, and reflects the highest credit upon the liberality of the people of the west. While we record such evidences of their enlightened views, we feel it due to the occasion to say, that it is by such deeds they have outstripped their neighbors this side the Alleghanies, and earned for their section of country the well deserved appellation of *The Great West*; for great must that country be whose patriotic people are impelled onward by such generous impulses—impulses which know no restrictive measure—nor recognise no mean limit of dollars and cents—compared with the advancement of their agricultural resources and the improvement of their domestic animals.

In looking at those sales one is struck with astonishment at the tardy pace that has marked the spread of this generous breed of animals throughout our country, and how much the more wealthy of our agriculturists have been at war with their interests. Having said thus much, we will leave it to our readers to draw their own conclusions with respect to the advantages which are likely to enure to them from introducing this peculiar breed of cattle on their estates:

SALE OF SHORT-HORNS,

Imported by the *Ohio Company for Importing English Cattle*, in the years 1834, 1835, and 1836—held at Indian Creek Farm, the residence of Felix Renick, Esq., Agent of the said Company, in Ross county, on the 29th day of October, 1836. The Stock of the Company was in fine condition and in great demand.

Notwithstanding the high prices at which the Cattle were sold, some of them exchanged owners immediately, at very considerable advances; and for others, more than fifty per cent. on their cost was offered and refused.

Reformer, a bull, not sound, sold to John T. Webb, of Ross county, O., for 48 dollars.

Matchem, a bull, sold to Abraham Renick, of Kentucky, for 1200 dollars.

Earl of Darlington, sold to Batteal Harrison of Fayette county, O., for \$710.

Young Waterloo, a bull, sold to R. D. Lilley, of Highland county, O., for \$1250 dollars.

Duke of York, a bull, sold to R. R. Seymour, of Ross county, O., for 1120 dollars.

Experiment, a bull, sold to James M. Trimble of Highland county, O., for \$1150.

Comet Halley, a bull, sold to R. R. Seymour, of Ross county, Ohio, for \$1505.

Whitaker, a bull, sold to William M. Anderson, of Ross county, Ohio, for \$855.

Nimrod, a bull, sold to Elias Florence, of Pickaway county, Ohio, for 1040 dollars.

Duke of Norfolk, a bull, sold to Robt. Stewart, of Ross county, Ohio, for 1255 dollars.

Goldfinder, a bull, sold to Isaac Cunningham, of Kentucky, for 1095. Afterwards sold at pri-

vate sale to Gen. Vance and J. H. James, of Champaign co. Ohio, for 1400 dollars.

Duke of Leeds, sold to John Crouse, jr. of Ross county, Ohio, for 575 dollars.

Windham, a bull, sold to Charles Davis, of Ross county, Ohio, for 500 dollars.

Columbus, a bull, (not sound) sold to Thomas Huston, of Pickaway county, Ohio, for \$180.

Davy Crocket, a bull, sold to Peter L. Ayres, of O., for 490 dollars.

Snowdrop, a bull, sold to Stewart & M'Neil, of Ross county, O for 480 dollars.

Independence, a bull, sold to Heglar and Peterson, of Ross county, Ohio, for 400 dollars.

Perry, a bull, sold to Wm. H. Creighton, of Madison county, Ohio, for 400 dollars.

Goliah, a bull, sold to Isaac V. Cunningham, of Sciota, for 300 dollars.

Logan, a bull, sold to Elias Florence, of Pickaway county, Ohio, for 750 dollars.

John Bull, a bull, sold to Wm. Renick, jr. of Pickaway county, Ohio, for 615 dollars.

Paragon, a bull, presented by the company to Felix Renick, Esq. their agent.

Powhatan, a bull, sold to George Renick, sen. of Ross county, with Flora.

Rantipole, a bull, sold to Arthur Watts, of Ross county, Ohio, for 810 dollars.

Gaudy, cow, sold to Jas. A. Trimble, of Highland county, Ohio, for 985 dollars.

Blossom, cow, sold to R. R. Seymour, of Ross co., Ohio, for 1000 dollars.

Flora and her calf Powhattan, were sold to Geo. Renick, sen. of Ross county, for 1205 dollars.

Lilly of the Valley of Tees, sold to Tho. Huston, of Pickaway county, for 950 dollars.

Matilda, sold to Arthur Watts, of Ross county, for 1000 dollars.

Calypso, cow, sold to Strawder M'Neil of Ross county, for 325 dollars.

Young Mary and her calf Pocahontas, were sold to Edwin J. Harness of Ross county, for \$1500.

Lady Blanch, (no proof of this cow being a breeder,) sold to Charles Davis of Ross co. for 250 dollars.

Tees Water and her calf Cometess, sold to John I. Van Metre, of Pike county, Ohio, for 2,225 dollars.

Duchess of Liverpool, sold to Wm. M. Anderson of Ross county, for 570 dollars.

Lady Colling, (it is doubted whether this cow will ever be a breeder,) sold to John T. Webb of Ross county, for 205 dollars.

Beauty of the West, sold to Ashel Renick, of Pickaway county, Ohio, for 900 dollars.

Lilac, sold to Elias Florence, of Pickaway co. for 425 dollars.

Lady of the Lake, sold to R. R. Seymour, of Ross county, for 775 dollars.

Lady Paley, sold to Alex. Renick, of Ross co., for 510 dollars.

Poppy, sold to Harness Renick, of Pickaway county, for 610 dollars.

Pink, sold to Wm. Trimble of Highland county, for 575 dollars.

May Flower, sold to Batteal Harrison, of Fayette county, Ohio, for 405 dollars.

Lucy, (pedigree doubtful) sold to George Radcliff of Pickaway county, for 105 dollars.

Moss Rose, sold to Jonathan Renick, of Pickaway county, for 1200 dollars.

Celestina, sold to Thomas Huston of Pickaway co., for \$930.

Malina, sold to Isaac Cunnirgham for \$1005.

Illustrious, sold to Abraham Renick, of Kentucky, for 775 dollars.

Lady Abernethy, sold to Thos. Huston of Pickaway county, Ohio, for 815 dollars.

J. L. TAYLOR,

Sec'y of the Ohio Importing Company.

Sciota Gazette.

PRINCIPLES OF VEGETATION.

As every thing which appertains to the production of so important a staple as wheat, must always be of profound concern to the farming interest, we insert the following from a British paper, under the confident belief, that it will elicit attention from every enlightened mind engaged in the pursuits of husbandry. The principles assumed, and facts set forth, will be novel to many of our readers, and will, we hope, set on foot a spirit of inquiry calculated to promote the great interest whose province it is to provide the staff of life for home and foreign consumption.

Principles of Vegetation—Wheat.—At the British Association in Bristol, Mr. O. Webb Hall read a communication "On the Acceleration of the Growth of Wheat." He called the attention of the Meeting to a statement of facts by which it would be seen that the usual period allotted to the occupation of the ground for a crop of wheat might be very materially abridged. At an average, this might be estimated at 10 months, though 12 and even 13, were not unusual, and 8 might be considered as the shortest period for the ordinary winter wheat. By a selection of particular seed, and a choice of peculiar situation, wheat sown early in March, has been, on different occasions, ripened before the middle of August, a period scarcely exceeding 5 months. Mr. Hall considers it an unquestionable law of vegetation, that the offspring of a plant of early maturity seeks to become so likewise, even when placed in unpropitious circumstances and that it recedes with reluctance from the condition of its parent. Hence the seed of a crop which has been ripened in 5 months has a better prospect of producing another crop equally accelerated than that from a crop which has been longer in ripening. He also asserted, that the acceleration of a crop was farther promoted by thick sowing, which likewise might be considered advantageous in checking and stopping the mildew.

Dr. Richardson referred to the remark of Humbolt, that in South America the wheat crop was ripened in ninety days from the period of sowing, and stated, that about Hudson's Bay this period was only seventy days. He suggested the probable advantages that might arise from importing seed from the latter country for the purpose of furthering Mr. Hall's views; but this gentleman stated, that he had found that seed imported from a distance (and he had tried some from Italy) was liable to become diseased. As connected with the subject of the acceleration of the growth of seeds, Professor Henslow men-

tioned results of experiments which he had tried upon seeds of a species of *Acacia*, sent by Sir John Herschell from the Cape of Good Hope, with directions that they should be steeped in boiling water before they were sown. Some of these were kept at the boiling temperature of 3, 7 and 15 minutes respectively, and had yet germinated very readily in the open border; whilst those which had not been steeped did not vegetate. It was suggested that these facts might lead to beneficial results, by showing agriculturists that they may possibly be able to steep various seeds in water sufficiently heated to destroy certain fungi or insects known to be destructive to them, without injuring the vital principle in the seed itself. Mr. Hope mentioned a practice common in some parts of Spain, of baking corn to a certain extent, by exposing it to a temperature of 150° or upwards, for the purpose of destroying an insect by which it was liable to be attacked. Dr. Richardson mentioned that the seeds sold in China for the European market, were previously boiled for the purpose of destroying their vitality, as the jealousy of that people made them anxious to prevent their exportation in a state fitted for germination. Upon sowing these seeds he had, nevertheless, observed that some few of them were still capable of vegetating.

[From the New England Farmer.]

AGRICULTURE, AS COMPARED WITH OTHER PURSUITS.

BY FRANCIS R. GOURGAS.

Tillage of the earth was the first employment assigned to man, and it is of all occupations the most pleasant and independent. It is one which not only requires physical ability, but if carried to the most profitable and praiseworthy extent, it also requires mental exertion—and by these very requisitions, it creates and preserves a healthy and vigorous state of body and mind. No individual need be happier or prouder than the cultivator of the earth—to be sure he has his cloudy days; the seasons are sometimes unpropitious, cutting short his crops, and grasping with an iron hand some of his dearest interests, but wrecks are found elsewhere than on his coasts. The merchant, and mechanic, and manufacturer, all have their moments of adversity to dread; and perhaps with not a single hope to cheer them on in their struggle between duty and self; the husbandman is never beyond hope, as long as his land exists and fertility continues to abide in its vitals—and when did either the one or the other fail?

But it is not the security of the farmer which alone recommends his situation, it is the inexhaustible source of pleasure always at his command. It is he, who can study to the most advantage the mysteries of nature—it is he, who has access at all times to her charms; the happy song of the bird strikes pleasantly upon his ear; the morning breeze comes gratefully to his brow, the rising sun, the beautiful flower and every varying foliage, the joyous insect, and the thousands and tens of thousands of objects blessed and indulged under the guidance of a kind Father—are to him scenes glorious and great. He is not confined to a dwelling, to perform the

mental drudgery and make the dry calculations of the merchant; nor to a shop, to go through the laborious and tiresome operations of encountering the dangers and partaking of the toils, and hardships of the mariner; in the charming language of Bloomfield,

"No wilds has he to roam,
But bright enclosures circling round his home."

Such is the husbandman's lot, which so many affect to dread, and which formerly so many affected to despise; it possesses more advantage to recommend it to the notice of man, than any other employment upon the wide earth. It is an occupation admirably calculated to improve and exalt the human mind, from the very circumstance, that the mind is continually called upon, to study and observe and admire the works and providence of a superior Being; there is not a particle of earth, nor an insect, nor an herb, but which affords food for an intelligent mind to taste and enjoy. The great phenomena of nature, which have at different times been discovered, and whose discovery has brought about revolutions, and effected changes, (the thoughts of which would have before started the very soul of man,) have been first observed and made known, by those engaged in the pursuit of Agriculture—a fact which ought to excite love and attention to the subject.

In pursuing this avocation, man has opportunities to perfect his acquaintance with many of the sciences—which, if he was otherwise engaged, he might not so conveniently avail himself of. A farm is a vast text book of chemistry, botany, &c. proving their principles, and continually testing the efficacy and value of the application of those principles—and man in purchasing it pays nothing for these treasures of knowledge it contains. He may analyze soils, and discover the properties and use of herbs and plants, and do this, as it were, in the regular course of business; without hardly devoting an extra hour on the subject; and moreover, a healthy system and a firm and vigorous mind bring to the task that energy and devotion which insures success.

It is not the least recommendation of Agriculture, that those engaged in it are the most independent class of men on the globe. They are subservient to no one, on the contrary every other business is supported by them; if the vessels of the merchant were rotting at the wharves, the sound of the hammer was no longer heard, the husbandman might still go on. To be sure, the market for his produce might be dull and the commodity of money scarce, but he might still live comfortably, and every article of clothing and diet could be had, which ought to be found on the list of comfort and convenience; his school master, and other functionaries whom he must necessarily employ, might be hired as in olden times, on a salary of potatoes or pumpkins. Take it in what light you will, the independence of the farmer is a just and a noble dispensation of providence; it is he, who bears the "burden and the heat of the day," and whose mind by the nature and constancy of his employment is raised above the little trickeries and miserable evasions of trade,—and it is he, therefore, who should stand first on the roll of merit.

I cannot better close these remarks than by observing, that at the present day the husband-

man is beginning to participate largely of the honors and offices of his country. Men of thorough academic education, distinguished and wealthy individuals, are taking a personal interest in agriculture—setting their own shoulders to the wheel, and encouraging and assisting others to do the same. It is astonishing what a revolution has taken place in regard to this subject within the last half century; formerly our public offices were held altogether by professional men—now their seats are occupied by manual laborers, men who are an honor and a light to their country. This is right and natural; the farming community is the largest, and it would be singular if they were obliged to select their representatives from any other class. It should be recollected then by every individual entering upon life, that a choice of Agriculture as his avocation will by no means close the gates of popular favor against him, but on the contrary will be a hearty and warm recommendation wherever he may go.

CHEAP STRUCTURE FOR GRAIN & HAY.

JESSE BUEL, Esq.—Sir,—The remarks upon "stacking grain," contained in your August number of the Cultivator, induce me to recommend a kind of barrack, which I have used for several years, and which I think pays for itself in a short time. We will suppose that you wish to erect one which shall contain one hundred loads of grain or hay. Take twenty posts twenty feet in length, and about eight inches diameter, and set them in two rows; let the rows be sixteen feet apart, and the distance between the posts the other way, twelve feet; the posts must be put 4 feet in the ground; frame plates on these posts from end to end of the rows, and bind them together crosswise by girts, let in about two feet from the top, strengthen this crosswork by braces eight feet long; you will understand, of course, that the braces go from the girt to the posts.—Set on the plates, rafters of such length as will allow an Albany board, (when laid on for covering,) to project one and a half feet below the plate, make use of one and a quarter inch stuff for lath, laying one row at the ridge, another about midway of the rafter, and a third just clear of the plate. In putting on the roof-boards, every other one rides, and ought to lap on the edges of its supporters one and a half inches. The ends of the building are to be boarded from the peak till within six or eight feet of the ground, (this makes a string-piece or two necessary, which may be of plank,) and accommodated with a large window, having a sliding shutter.—On the sides of the building, you board down from the plate with three Albany boards, remembering to have a strip of plank about six inches wide, to tie them together in the middle. It will be well also, to put pieces of board along the ridge under the board that rides—this to prevent rain or snow from driving in. Your barrack is now completed.

In mowing away, you drive under, and fill one joint, or the compartment included by four posts, at once; when you get to the last end, that must be filled from the outside, through the window.

These buildings are cheap; they preserve hay

and grain in a perfect state; they obviate the necessity (often a very galling one) of employing an artist to stack; grain never grows in them; this may appear like repetition; but I must be excused for contrasting them with stacks, in this important particular, they will shelter several loads at a time when you are threatened with showers; or, you can drive under several loads at night, and let your hands store them away before breakfast; being a part of the day often wasted, even in the busiest season of the year. In the winter, when the exterior sheaves of stacks are penetrated to the bands with snow and sleet, so as to prevent thrashing for days, the grain in these buildings may always be got in, in order, excepting perhaps a very little on the windward side, which should be kept by itself till dry; poultry make no impression on grain in these buildings.

The last one which I built, (being No. 3,) was calculated for 40 loads, and this cost me (exclusive of timber which was cut on the farm) \$65.20. Persons who have not locust for posts, would do well to char the surface which is to go under ground.

Permit me to ask a question. Are you familiar with the use of the horse rake, the revolving rake; and did you intend to apply your remarks about curing hay *in cock*, to a country where this rake can be used?*

With high respect, your ob't ser't,

A SUBSCRIBER.

P. S. In mowing grain under these barracks, it is best to keep the middle of the mow highest, and to give the outer course of sheaves a good pitch. Moreover, a floor of poles, or rails, laid upon stones so that cats can go under, answers a good purpose.

*We are familiar with the revolving horse-rake, and commend it greatly on old thin meadows. Clover belongs to alternate husbandry, where the grass ought to be too heavy for its use, and it is not used in our mode of making clover hay, till after the crop has been carted from the field.—CONDUCTOR.—Cultivator.

SURFACE MANURING.

Until very lately, the opinion was very general, if not universal, that fermented manures should be turned under with the plough as soon as put on the land; and that otherwise their value would be much impaired, if not totally lost by evaporation. This was thought especially necessary, if the manure used was rough or half rotted.

I have thought much on this subject, and for the last twenty years marked the effects of manure in all its various modes of application, both on my own farm and on my neighbours'—and now propose to give you the results of my observation, leaving it to persons more learned than myself to reconcile these results to the principles of philosophy. Fifteen or twenty years ago, I observed an old man of good practical sense, and successful as a farmer, carting manure out in the month of July, on a field intended for Indian corn the next year: this was spread as fast as carted, and remained in that situation until spring following. He justified this practice by a perfectly unanswerable reason, viz: that experience had

taught him, that both his crop and his land were more improved by the use of his manure in that way, than any other he had tried. The confidence I had in the integrity and good sense of this old gentleman induced me to make repeated experiments on this subject, all of which have been decidedly favorable to top dressing, or surface manuring, and proved to my entire satisfaction, "that manure, when in contact with the earth, does not lose its strength by evaporation." This, I was exceedingly loth to believe, and I made many efforts to account for the fact—(for that I could not doubt)—and at length came to the conclusion that the chemical affinity between the parties, of manure and the earth, was too strong to be overcome by the power of evaporation; and that the apparent evaporation is nothing more than the passing off of the water, which had been contained in the manure. Whether this is so or not, I am sure I do not know. But I do know, that in the many different experiments I have made, both the land and the crop are more benefitted by the application of manure on the land, than by turning it under the land. I hope young farmers, who are not yet wedded to any set of opinions, will be induced (at least) to make the experiment.

Not having fame as a farmer, to give weight to my opinions, I shall sign myself

ARATOR.

Note.—The late Mr. Thos. West, brother of Sir Benjamin West, settled on a farm in New Jersey, after he had reached the age of forty. His object was to make it a grazing farm. He used no plough whatever, but the hoe and scythe to eradicate briars, weeds, &c. He top dressed his fields, or some of them, every year, and in a few years, he had the richest farm in the whole country around. See Memoirs Philadelphia Agricultural Society.

WILSON'S MOWING MACHINE.

Having witnessed the exhibition of this machine in operation last Thursday, on the farm of Mrs. Van Rensselaer, at Greenbush, we consider it due, both to the inventor and the public, to state that we think it performed all that could have been anticipated of a machine for the purpose.

It was propelled by two horses, and mowed a swarth more than six feet wide, as fast as the horses could walk; and as it is provided with a self-sharpening power, and needed no stops to sharpen, it must, we think, mow about one acre per hour; and notwithstanding the ground was very rough, and the grass dry and tangled, it was left in a handsome order. It is intended also to cut grain, and though we did not see the operation performed, we were fully convinced from its success in grass, that it will be equally successful in the harvest field.

As the manufacturing interest is now, by the aid of labor-saving inventions, infinite lengths ahead of agriculture in the race of improvement, it cannot but be cheering to every patriotic eye, to see inventive genius coming into the timely aid of agriculture, which, though thus far neglected, is well worthy of all the aid which human talent can bestow; and we think, with a few more such inventions as the one in question, agricultural stock may stand in fair competition with those of cotton spinning, the steamboats, or rail roads.

Albany Argus.

[From the National Atlas.]

PHILOSOPHY OF VEGETATION.

How wonderful is Nature! In the earth,
The tiny seed is sown, and from it springs
A tender plant that bends before the breeze,
And shivers in the blast. But mark it now
When years has past, a mighty trunk has risen.
And giant limbs that stand unmoved, and dare
The lurid lightnings and the storms of Heaven.

Could we but put aside the veil which is thrown over our senses, and could the untrammelled soul look forth upon the operations of nature, as they take place around us, how glorious would be the privilege, how ecstatic the enjoyment! But on the contrary, we can view the wonders around us only as through a glass darkly, and the senses are continually imposing upon the judgment. The chemical work-shops, or laboratories of nature, are almost entirely closed upon our senses, and we are compelled to gain our knowledge from the smoke which arises from her chimnies, and the occasional glimpses we can obtain through her windows. Yet the great author of nature has given us insight enough to make us wonder at, and adore his mighty power, without our becoming vain and proud of our own acquisitions of knowledge.

Men generally are unaware of the fact that there are many things around us of which we know very little, though they are undergoing their changes, and working strange phenomena every day in our sight. Some of the loftiest sciences, and most abstract operations of nature are often better understood than those which are immediately around us, and continually operating before our eyes. As an exemplification of this I will mention the phenomena which takes place in sowing the seed, and in the growth of the vegetable kingdom. There are very few, comparatively speaking, who know how the seed germinates, and the plant is nourished and grows, though they converse learnedly on the erratic disposition of comets, the attraction and gravitation of bodies, and the movement of the plants. Though they every day see them springing and growing around them, yet they are not aware that they are so absolutely necessary to human life, that the animal and vegetable kingdoms are reciprocally dependant upon each other, and that the purity of the atmosphere is actually kept up by the oxygen which is wasted in the vegetable kingdom.

Nature is very simple in all her works, she requires but few ingredients, oxygen, hydrogen and carbon being the principal, out of which she manufactures so many varieties of forms. The earth it appears serves little other purpose than as a matrix for the seed and plant, as very small portions of earth have ever been found in vegetable compounds. The earth is the channel or medium through which the plant receives its nourishment, and it also serves as a support to the roots of trees. All manures are good or bad in proportion as they contain the vegetable principle or food of plants, which is prepared by the decomposition of vegetable matter. Water is absolutely necessary to vegetable life, inasmuch as it takes up the saline and unctuous particles in the manure, and conveys them to the roots of the vegetable. If the soil is sandy it will not hold

a sufficiency of water, if too solid with clay, the water will collect in too great a quantity, and produce decomposition of the roots. Calcareous soils, or those containing the carbonate of lime are best adapted to the growth of plants, though it is often necessary to vary as potatoes do best in a sandy soil, wheat in a rich and rice in a moist soil. A ferruginous soil for fruit trees, and a moderately rich sandy bottom for forest trees.

In cultivating the Italian Mulberry, and the *Morus Multicaulis*, I have experimented on the relative properties of animal and vegetable manures, and find that the former is the best, inasmuch as it contains more nitrogen, which renders it more complicated, and consequently more favorable to decomposition. Animal substances cause vegetable matter to ferment with greater facility.

But let us examine a seed of the mulberry for example, and trace its progress from the earth. The external covering contains, beside the germ of the future plant, a substance, which is to serve it for nourishment in the early stage of its existence. This substance is called the *parenchyma*, and consists of focola oil and mucilage. The seed is generally divided into two parts called lobes or *cotyledous*, as may be observed in different kinds of beans. There is a dark colored cord or string which divides the lobes, and is termed the *radicle*, from the latin word *radix*, the root, as this string becomes the root of the future plant. Enclosed within the lobes is another part termed *plumula*, from which the trunk of the tree proceeds. All seeds have not the same number of cotyledous; barley, wheat and oats, and the grasses have but one. Some are found to have two, three, and others as many as six. When the seed is deposited in the earth, and the heat of the atmosphere is any degree above 40, the first operation it performs is to imbibe water. The seed softens, and the lobes swell. An absorption of oxygen then takes place, which unites with the carbon of the seed, and is returned in the form of carbonic acid. The loss of carbon consequently increases the proportion of oxygen and hydrogen comparatively in the seed, and as a natural consequence the saccharine fermentation takes place. By this process the substance of the *parenchyma* is changed to a soft, sweet pulp. The action of heat on the seed swells it to such a degree that it cannot contain itself, and the root darts forth, and strikes into the earth. The stem also pierces its covering, and passes up into the air, carrying with it two leaves, which are called the seminal leaves, and serve to elaborate the sap destined to support the stem. Thus the cotyledous now becomes the seed leaves, or lungs of the tree.

There is a very strong resemblance between the seed and an egg. Heat is necessary to develop the living energies of both, and there is a substance in each destined to supply nourishment to both in the early stage of their existence. So soon as the chick can provide for itself the egg breaks, and so soon as the roots of the tree can imbibe ample nourishment from the soil, the seed leaves drop off. Indeed there is a striking analogy between the whole vegetable and animal kingdoms.

So soon as the root branches off, and commen-

ces feeding from the soil, leaves become necessary to elaborate the sap and render it fit to nourish, and form the growth of the tree. Here we also see a striking resemblance between the functions of the leaves of plants, and the lungs of animals. There are vessels which serve in the animal system, to suck up and convey from the stomach and bowels a fluid called chyle, which is conveyed to the lungs, and there is brought in contact with atmospheric air, and is oxydized or fitted to nourish every part of the frame. In like manner the roots suck up water, from the earth it is conveyed by certain vessels to the leaves where it undergoes a change, and becomes the sap or blood of the plant, which is conveyed to and nourishes every part of the tree. The upper surface of the leaves, it is said, throws off by transpiration the superabundance, while the lower surface on the contrary, which is rough and downy, absorbs moisture from the atmosphere, thereby obtaining those ingredients in the air necessary to its health. Thus the greater the quantity of the foliage, the greater is the quantity of water taken up by the roots, and transpired from the upper surface of the leaves. Air and light appear to be essentially necessary to the existence of the vegetable creation. Light is necessary to the formation of colors. If you plant a potato in a dark cellar it will be perfectly colorless, and if a hole be made through which light may enter, the vine will turn towards it, and endeavor to reach it.

How beautifully does nature dispose the leaves on the stem of the plant. The under side of the leaf being intended to absorb moisture from the air, and the dews of night as they arise from the ground, the leaves are so arranged that one shall not be immediately over another. By this arrangement the under surface of each leaf is exposed to the ascending moisture of the earth. You will occasionally see the leaves placed alternately on two parallel, and opposite lines; again they are arranged in pairs crossing at right angles; and again they are placed on the angles of polygons, circumscribed on the branches, and arranged in such a manner that the angles of the inferior polygon corresponds with the sides of the superior. On some plants they ascend the stalks in parallel spiral lines.

It may be proven to actual demonstration, that the under side of the leaf is intended to absorb moisture, from the earth and atmosphere. If leaves be plucked, and the under sides be placed on a basin of water, they will remain green for days, and even weeks, but if they be placed with the upper surface in the water, they perish in a very short time. Herbs that grow more rapidly than trees have both surfaces of the leaves rough, nearly alike, and absorb moisture more rapidly from the atmosphere. The fact of the upper sides of leaves being smoother, more glossy, and of a deeper color indicates a different use. If you incline the stalk of a tree it will turn and grow upwards. If you bend the branch of a tree so that its leaves are reversed in regard to natural position, the leaves will continually endeavor to turn back again; and will finally succeed. Plant a seed upside down so that the root shall start upwards and the stem downwards, and in a short time the root will turn and dive into the

earth, while the stem will also turn and start upwards into the air.

I have said that water is the chief nourishment of plants. It not only forms the sap, but it is the basis of all vegetable fluids. Through the medium of water all the ingredients, such as salts, &c. are carried into plants. The organs of the plant have the power of decomposing water, and thus the hydrogen of the water serves as a constituent of oil, of coloring matter, &c. and the oxygen aids in the formation of mucilage, of fecula, of vegetable acids, sugar, &c. The greater portion of the oxygen of the water, however, is changed by caloric into a gaseous state, the caloric proceeding from the hydrogen during the condensation it undergoes, in forming the materials of the vegetable. This gaseous oxygen is thrown off into the atmosphere by the leaves of plants. Thus the atmosphere is continually rendered pure, and the loss repaired, which is necessary, inasmuch as the constant oxygenation and combustion of substances, and the respiration of animals, are continually exhausting it. Thus too is there a mutual dependence between the animal and vegetable kingdoms as the plant is sustained by the substances thrown off by the lungs of animals, and the animal by the oxygen thrown off by plants. How wisely formed, how harmonious are the works of nature! How strange is the fact that we could not possibly exist any length of time without the vegetable creation, for the carbonic acid which is thrown off by animals in breathing would collect to such a degree in the atmosphere, as to render it entirely unfit for respiration, and death to the animal creation would be the consequence. But here how wise is the dispensation of Providence! The vegetable kingdom attracts, and decomposes this carbonic acid, and after making use of the carbon for its own purposes returns the oxygen to the atmosphere, for the use of ourselves, and the rest of the animal creation.

But let us return to the formation of the tree. Having traced it from the seed to the putting forth of the roots and stem, we will speak of the bark. The bark is composed of three parts, the *epidermis*, the *parenchyma* and the *cortical layers*.

The *epidermis* is a thin external skin particularly observable on cherry trees, as it may be easily peeled off. Upon examination it is found to be a thin membrane, through which the light is transmitted, and consists of five slender fibres, which cross each other in the manner of a net. In some trees, and in corn this membrane has a thin coat of siliceous earth, which gives it great strength. In some plants this membrane is composed of wax, and in others it is resinous.

The *parenchyma* lies next to, and is immediately under the *epidermis*. When the *epidermis* is stripped off it appears like a green rind, and is found not only on the trunk and branches, but extends to every part, even to the leaves. It is full of tubes, which contain a kind of fluid.

The *cortical layers* are immediately between the *parenchyma* and the wood. They are full of small vessels, which convey the sap downwards after it has been elaborated in the leaves. They contain a quantity of gallic acid and tannin.—Every year the old *cortical layers* are formed into wood, and new ones are formed.

The woody part of the tree, which is composed of woody fibre, mucilage and resin, is called the *albumum*. The fibres of the *albumum* run two ways; some of them longitudinally, and is called the silver grain, while others called the spurious grain, are disposed in a concentric manner. From the layers of the spurious grain, the age of the tree may be computed, one being formed every year by the conversions of the *cortical layers* into wood. The roots of the tree suck in water from the earth, and the tubes in the *albumum*, or wood convey it upwards to the leaves, where the tubes unite with the extremities of the arteries of the *cortical layers*. Here then is a resemblance to the circulation in the animal system. The water pumped up by the roots is the chyle, which the absorbent vessels suck up from the stomach and intestines, and convey to the lungs to be oxydized. So the water of the roots is conveyed by the vessels of the *albumum* to the leaves or lungs, and from them is distributed to the parts of the plant. But here the simile fails, as the plant has nothing answering to the human heart, from whence the blood is distributed after receiving it from the lungs. In the plant the sap is distributed from the lungs, but not by the way of a heart.

By the heat of the spring the small vessels of the plant expand, and partly perhaps by forming a vacuum, and partly by a capillary attraction the sap is carried up from the roots by the vessels of the *albumum* into the leaves, where it undergoes a chemical change, and becomes fitted for the nourishment of the plant. The vessels of the *cortical layers* now take it, and convey it to all parts of the plant. The tubes in the *parenchyma* are much larger than those in the sap, and serve perhaps to secrete some peculiar fluid necessary to the health of the plant, as the liver does in the human system. The juices of plants differ, and often in the same plant. In the centre of the *albumum* is the heart wood which appears to have no life, and the longevity of trees is owing to the want of this heart wood. The long life of the oak is no doubt owing to the small portion of heart it contains. In the hickory this heart wood gains upon the sap wood in a double ratio, and when grown old gradually spreads towards the bark, till the living and active portion is not sufficient to nourish the tree, and it dies.

How the several juices are made, and how certain changes are affected in the formation of the fruit, and the parts of the tree, is a mystery which has never been solved. The organs, by which those changes are affected, are so small as to escape all observation, and hence we are left in the dark on one of the most interesting points of vegetable economy. It appears that trees possess an internal heat, in which respect they also resemble the animal. A small portion of carbonic acid is carried with the sap from the roots which the internal heat of the plant serves to disengage. Indeed the whole plant is a chemical laboratory, in which the various changes are effected, and new combinations produced.

At the first appearance of a plant it is almost of a gelatinous consistence, but by a chemical change, which takes place in the juices which flow to it, the stock becomes harder and harder

by degrees, till it assumes the nature of wood.—The part of the stalk nearest to the root hardens first, and grows in a double ratio compared with parts above. After a while this part ceases to harden and grow, and the same effect takes place in a part immediately above. Thus it progresses upward till the whole stalk assumes the nature and consistence of wood. After this a succession of concentric layers take place, which are produced by the hardening into wood every year of *cortical layers*.

In the propagation of vegetables there is no resemblance to the animal kingdom. Vegetables may be propagated by seed layers and cuttings. The pistil and stamina in plants answer the same purposes, as the organs of generation in animals. The seed are inclosed in the former, and the pollen or fine powder of the latter fecundates it. Both sexes are often united in one plant, while in other species the male is on one stalk, and the female on another. Other species are distinct like animals in the sexes.

It appears that buds, and even leaves have within them the elements of the future tree, and hence a small stick cut from a tree having two buds on it, may, by being placed in the earth produce a tree. The lower bud will swell, and throw out roots while a tiny stem will start up into the air, from the upper bud. It is thus that the most of the *Morus Multicaulis* trees are now produced by the cultivators of silk in this country. It appears astonishing that a single leaf or piece of stick should be placed in the earth and there bud, and produce a tree in the same manner as the seed. The organs essential to life seem to be placed in every part of the plant, and consequently the means of propagating are multiplied.

There is yet another mode of multiplying, called grafting. Theophrastus informs us that a bird which had swallowed a fruit dropped it in the cleft of a tree where it grew, and became completely united to the original, though it proved to be a different kind. Hence sprung the art of grafting, and hence we see that it is of very remote origin. The graft which is fixed to another may be said to one tree taking root, and growing another, for it preserves its original. There appears to be a necessary congeniality to succeed in grafting. A plum tree will not grow upon an apple, but an apple will succeed upon the pear, as the seed of their fruit are alike. It is something very astonishing that apple seed will not produce their kind, but that the seed of one apple may produce a half dozen different trees; among which there may not be one bearing fruit like the original. Hence the use of grafting to produce and continue choice fruits, and also of propagating trees by cuttings, as they invariably produce their kind.

The *Morus Multicaulis*, I believe is now generally propagated by layers and cuttings, as the seed cannot be depended upon, being said to produce hybrid varieties or mixtures of the common white. The product of a few of the *Morus Multicaulis* trees when propagated by layers and cuttings is astonishing. Judge Comstock, if I do not mistake, mentions a gentleman, who thus produced from two trees in one season two hundred and two, besides the original two. The

rapid growth of the *Morus Multicaulis* is another great requisite which must render it a favorite. I have one growing before the window at which I write, which was sent to me as a present two weeks ago by Mr. Webster. Notwithstanding that it was taken up at a wrong season it grows with great rapidity, which is perceptible every three hours. In one week it has grown three or four inches in height, notwithstanding the stunning effect produced by being transplanted. The first week after transplanted it grew none.

Vegetable life is the link which unites the animal and mineral kingdoms, inasmuch as mineral substances are introduced into the animal system. "All flesh is but grass," and it is by the consumption of vegetable matter by the animal, that the simple elements are conveyed into, and become a part of the animal frame. Vegetation is simply the vehicle in which nature prepares the nourishing elements destined for the support of the animal creation.

MILFORD BARD.

Russian mode of making butter.—Sir,—Observing in a monthly scientific journal, an article on the subject of making butter in the winter, I beg leave to furnish the particulars on that subject, as practiced in Russia since the year 1816; and which may, perhaps, be of some service to those who may be induced to make the experiment either in summer or winter. Being in that country in the year 1834, I was informed by a Russian nobleman, that the proprietor of an extensive estate (also a nobleman of high rank) had discovered a new mode of making butter, and had received letters patent from the Emperor as a reward for the discovery, and which he stated at the time as being in full and successful operation. The process consisted in boiling (or rather a species of boiling, called simmering) the milk for the space of fifteen minutes in its sweet state; observing at the same time not to use a sufficient heat to burn the milk: it is then churned in the usual manner. He also stated that no difficulty ever occurred in procuring butter immediately, and of a quality superior far to that made from milk which had undergone vinous fermentation; and that in addition to its superior flavor, it would preserve its qualities much longer than that made in the ordinary mode; that the additional advantages were, that the milk, being left sweet, is almost possessed of the same value for ordinary purposes, and by some considered more healthy, as they supposed the boiling or scalding to destroy the animalculæ or whatever it may have contained.

If the above process should, upon experiment, prove of sufficient importance, as to bring it into general use, particularly in the winter, it would perhaps be to the advantage of those who may practice it, to have their milk scalded in vessels calculated to stand in the kettle or boiler, by which mode the danger of burning the milk would be avoided, for it is ascertained that milk only burns on the edges of its surface, or where it comes in contact with the sides of the vessel in which it is heated, which can never happen in double kettles or where one is placed within the other.—*London Mirror.*

Beet Sugar—This subject is beginning to attract great attention in the United States. Its cultivation appears to be simple, and lucrative, and the climate of our country is well adapted to it. It is becoming one of the staple articles of France, although it is not many years since it was in its infancy there. Bonaparte we believe patronised its manufacture, and encouraged its culture, as he justly conceived that no nation could be independent while it annually exported millions of dollars for sugar. A friend favored us with two or three selections on the subject, which were published in the Record, a few weeks since. We are happy to see that many of our Chester county gardeners and agriculturists are turning their attention to it.—*Westchester [Pa.] Record.*

A fine Cow—Mr. Isaac Edwards of Penn township, informs us that one of his cows has yielded him from the 1st of April to the 21st of October, the aggregate gum of \$34 50. During the same period of time she has averaged one pound of butter each day.

The wheat crop in France is represented as being worse than it has been for many years.

THE MULBERRY PATCH.

Although desirous of enlisting the Commonwealth, and particularly the Farming interest, to engage in the culture of Silk, yet we would not urge our Farmers to give up the corn crop, for the sake of introducing the culture of the Mulberry. *We advise no such thing.* But we do recommend, that every Farmer would appropriate a small patch of land for the culture of the Mulberry, that the females of the family, (who, after all, are to be the producers of silk,) may try the experiment with the men in the common and usual crops of the field, and see which will earn the most, with an equal investment, for 3 successive years. If you have any poor, sandy, gravelly patches of land, within a reasonable distance of the house, on that let Chinese Mulberry be set, because on such land the Chinese Mulberry will do well. Although it may appear paradoxical, that the poorest soil is the best, such is the case, when well stocked with the Chinese Mulberry; not only because a crop of Mulberry will yield more profit on such land, than any other crop, but because it matures wood earlier; whereas, if set on rich land, it would continue to grow and make green shoots until winter set in, and kill every part of the unmaturing wood. It is on this principle that it has been recommended not to stir the earth about the Mulberry after the first or middle of August, and because it is a peculiar property of the Chinese Mulberry to grow most vigorously on August and September, unless checked by frosts or by plucking the leaves and topping the plants.

Travellers inform us, that in France, after feeding the worms, the after luxuriant growth of foliage is gathered and fed out to cows and other cattle, and is eaten with great avidity. We have done the same ourselves and find that it accords with facts.—*Silk Cabinet.*

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

POINTERS FOR SALE.

A thorough bred *Pointer Slut*, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper.
no 15

DEVON STOCK.

THE editor of the *Farmer and Gardener* can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the *Farmer and Gardener.* no 15

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper.

Letters on the subject must be post-paid. oc 4

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the *Morus Multicaulis*, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1-2 to 4 feet—the 2 feet and 1 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.
se 27 ROBERT SINCLAIR.

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

R. SINCLAIR, Jr.
aug 30 Light near Pratt-st. whf.

CONTENTS OF THIS NUMBER.

Notice of an article on vegetable philosophy—American silk and the inducements to the culture—northern corn, and artichokes—great sale of Short-horn Durhams—principles of vegetation—advantages of agriculture compared—cheap structure for grain and hay—surface manuring—account of Wilson's mowing machine—interesting essay on the philosophy of vegetation—Russian mode of making Butter—culture of beets for Sugar—crop in France—a fine Cow—Mulberry culture—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	5 75	7 50
CORN, yellow,.....	bushel.	88	90
White,.....	"	85	86
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	—	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 50	13 00
Do. do. baker's.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	—
" wagon price,.....	"	10 25	—
City Mills, extra,.....	"	—	10 50
Do.	"	—	10 25
Susquehanna,.....	"	—	10 50
Rye,.....	"	6 00	6 25
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	6 75	7 25
Timothy (herds of the north)	"	3 50	4 00
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 00	8 25
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	48
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 00	5 00
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	115	125
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 25
Red, best,.....	"	2 05	2 13
inferior,.....	"	1 40	1 90
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	28 30
Three fourths Merino,.....	"	42 45	26 28
One half do.....	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,.....	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 94	2 00
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....par	VIRGINIA.
Branch at Baltimore,....do	Farmers Bank of Virginia,.....
Other Branches,.....do	Bank of Virginia,.....do
MARYLAND.	Branch at Fredericksburg do
Banks in Baltimore,....par	Petersburg,.....do
Hagerstown,....do	Norfolk,.....do
Fredrick,.....do	Winchester,.....do
Westminster,.....do	Lynchburg,.....do
Farmers' Bank of Mary'd, do	Danville,.....do
Do. payable at Easton,....do	Bank of the Valley,....do
Salisbury,.... 5 per ct. dis.	Branch at Romney,.... 1
Cumberland,..... 1	Do. Charlestown,....do
Millington,.....do	Do. Leesburg,.....do
DISTRICT.	Wheeling Banks,.... 2a2 1/2
Washington, } Banks, 1/2	Ohio Banks, generally 3a3 1/2
Georgetown, } Banks, 1/2	New Jersey Banks gen. 1 1/2a2
Alexandria, } Banks, 1/2	New York City,.... 1 1/2a3
PENNSYLVANIA.	New York State,.... 2 1/2a3
Philadelphia,..... 1 1/2a	Massachusetts,.... 2a2 1/2
Chambersburg,..... 1 1/2a	Connecticut,.... 2a2 1/2
Gettysburg,..... 1 1/2a	New Hampshire,.... 2a2 1/2
Pittsburg,..... 2a2 1/2	Maine,..... 2a2 1/2
York,..... 1 1/2a	Rhode Island,.... 2a2 1/2
Other Pennsylvania Bks. 1 1/2a2	North Carolina,.... 3a3 1/2
Delaware [under \$5].... 3a4	South Carolina,.... 3a3 1/2
Do. [over 5].... 1 1/2a3	Georgia,..... 3 1/2a4
Michigan Banks,..... 5a	New Orleans,..... 6
Canadian do..... 5a	

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee. Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,
At the Turf Register office, corner of
North and Fayette st. Baltimore

sep 27

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved Jacks, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 13 1/2 hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address

I. I. HITCHCOCK,
Agricultural Agent, No. 5 South Fifth st. Philadelphia.
Philadelphia, Oct. 13th, 1836. oc 25

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S'raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Latge size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herd Grass seed of superior quality.

JONATHAN S. EASTMAN.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 31.

BALTIMORE, MD. NOVEMBER 29, 1836.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,
and is published at the office, at the N. E. corner of
Market and Charles streets, at FIVE DOLLARS per annum,
payable in advance. All subscribers who pay in advance,
will be entitled to 50 cents worth of any kinds of seeds,
which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, NOV. 29, 1836.

CHANGE OF PROPRIETORSHIP.

The undersigned avail themselves of this occasion to notify the patrons and friends of the *Farmer and Gardener*, that they have bought out all the interest in said publication lately held and owned by Messrs. Sinclair & Moore, and Robert Sinclair, junior, together with all the debts due the establishment from the 1st day of May, 1835, the period at which it was transferred to the said Sinclair & Moore, and R. Sinclair, jr.

All payments will henceforth be made to the undersigned, who take this opportunity to respectfully solicit such of the subscribers to their journal as may be in arrears to forward the respective amounts due them by mail.

The business of the firm will be conducted under the name of *E. P. Roberts and Sands & Neilson*, to whom all communications upon business connected with the establishment will be henceforth addressed.

The editorial department as heretofore will be conducted by Mr. E. P. Roberts.

E. P. ROBERTS,
SANDS & NEILSON.

TO THE PATRONS OF THE FARMER & GARDENER.

The subscribers to this journal will perceive by the above annunciation, that the undersigned has become joint proprietor thereof, having in conjunction with Messrs. Sands & Neilson, purchased the entire interest of its late proprietors; and in thus making the change known, the occasion seems a fit one to call upon those of its patrons who may be in arrears to *enclose by mail* the sums which may be respectively due by them, in order that he may be thus enabled to render that justice to the work which its profound importance demands. The science of Agriculture, like all others, is progressive. Every day unfolds some

new light and discloses some fact of magnitude to the business of the husbandman. In every direction, both in Europe and America, men of learning and of science are bending their attention to the culture of the soil, and imparting enhanced interest to the subject by clothing it with the beauties which science and philosophy know so well how to throw around the chosen objects of their pursuits. To enable the undersigned to avail himself of the flood of intelligence, which the European writers are daily shedding upon the noble science of Agriculture, through their numerous periodicals, he designs, and to that end, has made arrangements for procuring from that quarter, such of the leading journals engaged in furthering the cause of husbandry, as will place it in his power to lay before his readers every thing that may be passing in Europe calculated to illumine the agricultural mind, and advance the prosperity and welfare of the tillers of the earth. But to effect this desirable object—an object near and dear to every sympathy of his heart:—for he is proud to say, he became connected with this journal from motives and feelings of devotion to the cause of agriculture—it is indispensable that the patrons of the paper should, in a spirit of justice and reciprocity second his views. To effectuate the object he has so much at heart, will require an outlay of considerable funds; but as the promotion of the agriculture of his country is, in his estimation, infinitely above all compromise with merely personal considerations, he trusts he is incapable of pausing to make a pecuniary calculation, when interests of such deep concern are at stake.

It is now eighteen months since the undersigned took charge of the editorial department of this paper, and while it does not become him to speak of the evidences of favor which his labors have received from the public, it may not be indelicate to say, that he brought to the discharge of the duties of his station, a zeal that never flags, and a devotion bordering on infatuation. And to that zeal and devotion more than personal qualifications it may be, that he is to ascribe the solid marks of friendship which it has been his good fortune to receive from subscribers in Virginia, North Carolina, South Carolina,

Georgia, Alabama and other states. Many gentlemen residing in those states having, unsolicited by him, generously volunteered for that purpose and procured him subscribers. Such instances of the kind feelings of the patrons of the paper, did not fail to beget in his mind a correspondent emotion of gratitude and to sweeten the toils of his avocation.

The undersigned mentions these facts, so honorable to the gentlemen to whom he is indebted for such disinterestedness, and so grateful to his own sense of gratitude, because he desires in a spirit which he cherishes as holy, to manifest the profound degree of sensibility with which he is inspired, by making an offering to the cause of Agriculture. On the commencement of the next volume, the proprietors propose reducing the subscription price agreeably to the following terms. All subscriptions which are paid in advance, or within one month from the commencement of the subscription year, will be *Two dollars and a half*:—all which remain unpaid beyond that period, will be charged at the rate of *Three dollars* per year.

The object of the undersigned, and his co-partners, in making this reduction, is, to place the work within the reach of every farmer and planter, believing that nothing so tends to stimulate the exertions of those engaged in it, as reading exclusively devoted to the practice and science of agriculture. May the undersigned then not make an appeal to all of his readers, who feel an interest in promoting the good cause, to procure from among their neighbors and friends at least one new subscriber for this work. If the undersigned thought that mercenary motives influenced him in proffering this request, or that it would be so construed—if he could believe would even be considered as indelicate, he prays his readers to believe him that it never would have been made. But when he has so many flattering proofs of the facility with which several of his subscribers have procured additional names for him—when he reflects that those favors were unasked—when he considers that his object now is, by obtaining additional patronage, to enable him to so reduce the price of

his paper, as to make it an inducement for farmers in every circumstance of life to take it—and when he is vain enough to hope that if his journal is extensively diffused, its benefits will be equally so, he cannot doubt that his present request will be met in the proper spirit, and that his exertions to promote the great cause of husbandry will be sustained.

A PUBLIC SPIRITED PATRIOT.

The *Knorrville Register* states that at the meeting of the Commissioners in that place for the purpose of ascertaining the amount of stock subscribed to the Charleston and Cincinnati rail road, it was found that there was a deficiency of 2,000 shares to secure the charter, and that the whole amount was immediately taken by Col. Wade Hampton, jr. of South Carolina. Such acts of public spirit are, indeed, truly commendable, and it may be said with great truth, that wealth in the hands of such men is a means of great good to communities, and reflects imperishable honor upon those using it for such laudable purposes.

The *N. Y. Commercial Advertiser* of the 19th inst. says:—that within the three preceding days 20,500 bushels of German wheat had been sold in that city at from \$2 to \$2.05 per bushel.—Such supplies from abroad will come in very seasonably to meet the deficiencies of our own short crops.

The *Augusta Chronicle* of the 19th instant, has the following description of an ear of northern corn:

STOCK CORN.

We know of no better appellation to bestow on an ear of corn left at this office yesterday by a gentleman, who recently received it from the north. In shape it somewhat resembles the Pine-apple, being large at one end, and gently tapering off. It is well filled with corn, each grain being separate, and covered with a strong husk. The grain is about the size and shape of our common goarseed, but firmer, and we think would make much better grist. The curious can have a sight of it by calling at this office.

CLAIRMONT NURSERY.

The *Baltimore American*, of the 25th instant, pays the following just and handsome compliment to the excellent nursery establishment of our old friend Sinclair. The advice contained in it to farmers to pay more attention to the cultivation of fruits are as sound as well expressed:

"A friend, a highly respectable farmer residing in Baltimore County, has politely presented us with three varieties of apples, the product of trees from the nursery of R. SINCLAIR, Senr. which in form and flavor equal if not surpass any that we

have ever seen of their respective species. They are all winter apples of the best kinds, being the red streak, bell flower, and the rambo. It affords us sincere pleasure to notice the success with which the untiring zeal of Mr. Sinclair has been attended in the improvement of our most valuable fruits and beautiful flowers, and to express a hope that his enterprize may be crowned with profit to himself as it has been with great benefit to the community. We recommend without hesitation the establishment of Mr. S. to all who may be desirous to obtain the best fruits, and wish to be assured of getting what they bargain for, instead of going to other cities and States, where no advantage exists commensurate with the additional trouble of transportation. It has been matter of great surprise to us that farmers do not devote more of their attention to the cultivation of fruits, the profits from the finer descriptions of which would most assuredly give them a very liberal compensation for their care and attention. Of the correctness of our opinions on this subject, the strongest evidences are to be found in the experience of many who have paid particular attention to their orchards and gardens, from which they have uniformly received large profits. No climate can be better than that of Maryland in reference to fruits generally, which only require, under the genial influence of our balmy air, a moderate share of care to attain perfection.

COMMUNICATION.

SEED CORN.

Extract from a letter from a subscriber living in Crawford County, Georgia, to the editor of the *Farmer and Gardener*.

"While my letter is still open, I will seize the occasion to admonish my brother planters of the necessity for exercising care in the selection of their seed corn. They may depend upon it, that success in *quantity* as well as *kind*, materially depends upon it. Of this fact I have long been fully satisfied. It is now thirty years since I first commenced the business of a planter in this State, and although a *corn crop* is not the chief object of my business, I consider it a part of my duty to secure at least as much each year as will meet the demands of my hands and stock, and, therefore, take pains to protect my seed corn from harms-way. My plan of doing so, is similar to that pursued in the eastern states. As soon as the corn is sufficiently matured for the purpose, I make my manager go through the field and select a sufficient number of the largest and best filled ears: these are stripped, leaving the husks appended, by which they are wove together and hung up in bunches of a dozen ears each, in my garret, where they remain until corn planting time, when they are taken down for use. Before I adopted this plan I frequently experienced mortification and disappointment in the corn not coming up. I used formerly to *blame the crows*; but as destructive as they are, I now believe they get a great deal more censure than they deserve, and that, in numberless instances, the non-appearance of the corn plant arises from the germinating principle of the kernel being destroyed by being subjected to *heating*, in consequence of the ears being thrown promiscuously together and suffered to remain so for some time, while

the corn is not *thoroughly dried*. It is a well ascertained fact that a large portion of the foreign wheat which arrives in our country will not germinate. This is owing to the circumstance of large bodies of it being thrown together in a vessel's hold, where it is liable to alternations of heat and moisture, and thus becomes deprived of its *power of vegetation*, and the same cause acts to destroy it when large bodies of corn are thrown together.

"I may not have expressed myself clearly, but I hope my meaning is discernible through the *mist*. As I understand raising corn better than writing, your readers will take the will for the deed, and find an apology for this rough-hewn communication in the motive that prompts the writer to make it."

Note by the editor of the Farmer and Gardener.

We are thankful to our correspondent for his timely communication, and without intending to flatter him, will observe—that he need not make any apology for what he terms his "*rough-hewn*" communication. It is written with conciseness and clearness, treats upon a subject of deep moment; and will be read with interest. We hope that the laudable example he has set, of giving the result of his experience to his agricultural brethren may be followed by others of our subscribers. The practice and observation of *practical husbandmen*, are of vast importance, and if those engaged in the noble art would but freely commit their experiments and several modes of culture of the various products of the earth to paper, a flood of light and information would be shed upon the subject of agriculture generally, that would not fail to promote the interests of those engaged in it. All sciences are progressive, and it is alone by diffusing the knowledge that is gained by experience among its members that communities in the aggregate are benefited.

APPEAL TO VIRGINIA FARMERS AND PLANTERS.

We copy with no measured feelings of pleasure and pride, the following well timed ADDRESS by the editor of the *Winchester Virginian*. It breathes so much good sense, and is imbued with so much patriotic feeling, that we cannot pass it by, or insert it without special notice. It is addressed to the agriculturists of Virginia, but it is so ample in its bounds as to be just as well adapted to the condition of the states of New Jersey, Delaware, Maryland, North and South Carolina, and many parts of Georgia, as it is to that of the first named state. We respond in the depths of our sincerity to the sentiments it contains, and while we tender to the enlightened writer the just homage of our thanks, we commend his excellent paper to our

readers, and ask them when they peruse it to pause and reflect, being certain if they do his motives justice, they will adopt his wholesome recommendations.

THE FARMER—THE SEASON—AND THE CROPS.

The farmer, in the countless vicissitudes of his domestic prospects, can now sum up the results of his labor for another year, and see whether they will meet his expectations, or even his necessities. Few, very few, will be gratified by the estimate. Many, we fear, will be disappointed, and find that their actual wants are beyond their resources—blighted, as have been their hopes, for several years.

Although the frequency and the quantity of rain have been unusually great this season, yet the crop of small grain has been less than ever—thus setting at nought the bitter complaints about “dry weather,” to which the preceding failures were chiefly attributed. The result is more lamentable, with rain in abundance, than when the crops were withered by a parching sun. When the snows of the last severe winter had melted away, the prospect was flattering; but the anticipations of spring have not been realized in autumn. Those who sowed in hope, have reaped in disappointment and sorrow. We are told, however, that such is the end of every earthly expectation: that every day, from the cradle to the grave, teems with similar hopes and disappointments; that, if stern necessity is satisfied, even at the expense of extreme exertion, it is all that we deserve—it is all that the majority of our species enjoy. This is melancholy consolation, indeed; and it may be well to deliberate—What is to be done—what is to be expected? ‘Experience teaches;’ it is often a hard matter, and this community has long felt its scourge. Whether it will profit by the lesson, is left to the voluntary choice of each individual. We have witnessed, time after time, the failure or destruction of the staple productions of the soil. Will the same misfortunes continue, or be endured without an attempt to change? Or can we calculate with certainty, that the former abundance will return—that the earth will again pour forth her treasures? It may be so—and we trust it will. But prudence and foresight dictate that preparation should be made for the reverse. And if the reverse should come, and the farmers meet again with the same disappointments, will they wear themselves out in fruitless exertion—or will they fold their arms, and see ruin approach—or will they, as too many have done, pick up their all and journey to some other land, like the wandering tribes of old? These are dire alternatives—others, more agreeable, are abundant. A little enterprise, a little exertion properly applied, would, in all probability, produce a desirable change, and bring success and prosperity, instead of disappointment and biting necessity.

There is an antidote for every poison—and if this maxim is true, there is also a remedy for the evil in question, without forsaking the land of our nativity. Could not the mode of culture, or the nature of the product itself, be varied, and some others substituted more congenial to our soil and climate? At least, could not experiments be made, at little expense, while the old methods,

the old customs, are further tried? New England formerly produced, in great abundance, the staples to which we cling so tenaciously—but they became as uncertain there as they are now in this valley. What did the Yankees do? Did they stubbornly struggle against the fiat of Providence, or ‘lie down, and curl up and die’?—No—the unexampled prosperity of the northern states shews that they did not. They yielded to the order of nature—adapted themselves, their industry, their enterprise, to its course. They gave up, in a great measure, the culture of bread stuffs, and resorted to mechanical arts—to the growth and manufacture of wool and silk, and such other articles as yielded profit. They shunned whatever became unprofitable, and by their industry and economy, and ingenuity, have accumulated wealth, and can laugh at the folly of those who persevere in the pursuits and customs of their fathers, when the country, from exhaustion, from the ravages of the fly, and other untoward circumstances, is no longer suited to such customs. They have brought the elements into subjection; and the fire, the flood and the tempest, like menials, minister unto them. Indeed, what is it they have not turned to their own advantage? Even the passions and prejudices, the credulity, vice and folly, of southern men, have been wrought upon to perfection, and have, in their turn, contributed to swell the growing profits of that extraordinary people. True, that in the conduct of some of them there is much that we cannot commend; but the result of their enterprise is the most unexampled prosperity. A like prosperity is within the reach of the Virginia farmer; he has the same mental and physical power, and our country presents as many, if not more, natural advantages. But, says one, what shall we do?—as if his ideas were chained to one routine of business—as if there were not a thousand honorable expedients by which he might improve his condition.

Suppose it is best to rely upon the cultivation of grain. Do we not hear, in the mouth of every one, “How nicely they farm in Pennsylvania! Small tracts in first-rate order—every thing managed to the best advantage. Why cannot Virginians do so?—they don’t know how, they farm too much land, and don’t half cultivate it.” Such language you may hear from intelligent farmers. Yet who attempts any material change? Who has adopted the Pennsylvania mode, (now a proverb among us,) and has tried the experiment well? Again: admit that grain is too uncertain, many other sources of wealth remain. The culture of silk has proved successful and very profitable in this country. The mulberry flourishes—and it is no more difficult to raise than apple trees. The seed is easily procured—one or two dollars will pay for enough to stock a small farm. In one hour they may be planted; at the expiration of three years their leaves may be used. The attention they may require, in the meantime, in cleaning, trimming and transplanting, will not amount to a week’s labor for one hand. It may be done, and the silk made, without interrupting the usual routine of labor on a farm; and a family may be clothed in silk at as little expense and trouble as in cotton, or the silk may be sold at a high price, and afford ample funds for the purchase of food and merchan-

dise. If it is an objection to occupy cleared land in the experiment, the mulberry may be planted in the woods, along rivulets, or in hedges. It will add to the value of the farm ten, if not ten thousand fold, the expense; and if the owner does not choose to make silk, the leaves will sell. In France (and why not here?) the white mulberry trees rent for one dollar each, and 150 may be planted on an acre. These are the assurances of those who have tried the experiment. Now, when the expense and trouble are so very trifling, and the prospect of success at least probable, who, having lands, will hesitate to try—especially amidst such universal complaints of failure in our ordinary crops?

There are many other expedients, which the interest and the fancy, and the skill of the farmer will readily suggest, which would enable him to live as prosperously in this section as in any other, and to rival the exemplary industry and frugality of our northern brethren. And “our own, our native land” would flourish, instead of being depopulated by the wild *mania* of emigration. It may be presumption in us to talk thus to the sturdy farmer, who must know his own business best. But, amidst such unusual complaint, we hope to be pardoned for joining in the recommendation of remedies. Besides, if any one does not choose to heed our suggestions, why, then—he can let it alone.

For the Farmer and Gardener.

TIME OF SOWING WHEAT.

I have noticed of late that several writers have advanced the opinion that *Wheat*, if sown *late*, will stand a better chance to avoid the ravages of the *fly* than if it be sown *early*. One of these writers intimates that between the 1st and 10th of November is about the proper time. I have sowed my wheat late and early, and although I have no *data* to refer to, the impression is very strong upon my mind that the former was more generally exempt from this insect. Upon one occasion, I think it was in 1831, I did not get my last field of wheat in until the 2d of December, and that my neighbors all prognosticated, kind souls, that the grain would rot in the ground and never come up. It did come up, though not until the next spring, generally, and it was observed on all hands that it was the best field of wheat on my farm, although the rest (three in number) had been manured and ploughed just as well as it was. The field consisted of 20 acres and yielded 426 bushels of good merchantable wheat. It was of the red bearded variety. The field had been the two preceding years in clover, and prior to ploughing it in I put on 500 bushels of shell-lime,* 25 bushels to the acre.—In turning down the sod, I was very careful, employing a hand to follow the ploughman and turn all that did not lay flat with the sod completely under. I made the ploughman plough deep, say from 7 to 8 inches—the surface being harrowed, furrow-wise, I spread over the whole field about 1,000 bushels of ashes, and 200 single horse cart loads of well rotted manure, mixed with about one-third its quantity of vegetable

* This would seem to justify the high estimate which Professor Ducatel sets on shell-lime.

mould from the woods—then sowed my seed, and instead of harrowing it in, passed the Cultivator over it. In this state it remained until the frost was out of the ground in the ensuing spring, when to prevent the ill effects of frost-spewing, I passed the roller over it.

I have intimated that I gave this field a liming at that time, 1831, of 25 bushels to the acre, and I can now add, to this day its benefits are as obvious as the noon-day sun, and I doubt not, that it is more productive than it was when first cleared: how long it may remain so, is to be tested by time; but by following up the good system of rotation of crops, and ploughing in a green crop of clover, rye, oats, or buckwheat occasionally, I think it will last for at least ten years in good heart.

My neighbors lime much heavier than I do, some four-fold, others six-fold, but I doubt the necessity, and if by putting on 25 bushels to the acre we can secure as great a benefit for a reasonable number of years as when we put on a much larger quantity, why should we incur the additional expense?

A PENNSYLVANIA FARMER.

We find the following in the Alexandria Gazette of the 15th instaut:

Notice to Farmers and Millers.—The dealers in Flour have found it necessary to make a deduction of 50 cents per barrel on each barrel of Flour branded garlicky, when purchased from wagons or boats, which custom will be adopted immediately, and invariably adhered to after this date.

CULTURE OF SILK.

We have before us a petition, which will probably be presented to the citizens of this county in the course of the week, for signatures, the design of which is to attract the attention of the Legislature of this state, to the great importance of the culture of Silk in Ohio, and deeming that that body should foster and encourage its growth by every means which they may deem just and proper. The attention of every farmer and citizen should be directed, particularly to this object, as one destined to be a source of both individual and national wealth. It is a subject which will soon be one of the agitating questions of the day. The culture of silk will shortly become the rage, for the immense profits arising from its growth will, when the facts are more extensively known and disseminated, become the favorite object of pursuit.—*Massillon (Ohio) Gazette*, Nov. 18.

GATHERING AND PRUNING FRUIT.

Great quantities of winter fruit are raised in the vicinity of Boston, and put up for winter use, for the market, and for exportation. The following is the mode almost universally adopted by the most experienced. And by this mode the apples, under favorable circumstances, are frequently preserved in a sound state, or not one in fifty defective, for a period of seven or eight months. The fruit is suffered to hang on the tree to as late a period as possible in October, or till hard frosts have loosened the stalks, and they are in danger of being blown down by hard

winds; such as have already fallen are carefully gathered and inspected, and the best put up for winter use. They are carefully gathered from the tree by hand, and as carefully put into baskets. New, light, well-seasoned flour barrels from the bakeries are preferred; the barrels being quite filled, are gently shaken, and the head is pressed down to its place and secured. It is observed that this pressure never causes them to rot next the head, and is necessary, as they are never allowed to rattle in moving. No soft straw or shavings are admitted at the ends, it causes mustiness and decay. They are next carefully placed in wagons and removed on the bilge, and laid in courses in cool, airy situations, on the north side of a building, near the cellar, protected by a covering on the top of boards, so placed as to defend them from the sun and rain, while the air is not excluded at the sides. A chill does not injure them; it is of service, but when extreme cold weather comes on, and they are in imminent danger of being frozen, whether by night or by day, they are carefully rolled into a cool and dry cellar, with an opening on the north side that the cold air may have free access—they are laid in tiers, and the cellar is in due time closed and rendered secure against frost.—The barrels are never tumbled or placed on the head. Apples keep best when grown in dry seasons and on dry soils. If fruit is gathered late, and according to the above directions, repacking is unnecessary; it is even ruinous, and should on no account be practised till the barrel is opened for use. It has been fully tried.—*Horticultural Register*.

PRUNING TREES.

We notice that some of our neighbors have already commenced pruning their fruit and shade trees. The operation had better be omitted until the month of May or even the fore part of June, as the wounds made by cutting off limbs at that season, will sooner be covered with new wood than those made by cutting during the winter. The pruning of fruit trees may be omitted until after they have passed the flower, and the young fruit begins to show itself, the limbs to be cut away can be more judiciously selected with regard to the crop. Ornamental trees may be trimmed as soon as they begin to leaf out. In cutting off a limb, a small cut should always be made on the lower side first, then the limb may be sawed or cut on the upper side without the danger of splitting down when nearly off, which often happens when this precaution is not taken.

DRAINING.

The importance of underdraining to health, where lands are flat, and possess a retentive subsoil, to say nothing of the benefits which draining imparts to the culture, is well explained in the following extract which we make from M. Puvis.

"The water with which the soil is inundated, not being able to escape in any direction, (the surface being level, and the subsoil too compact for its passage down, remains there (upon the subsoil) in a state of stagnation, the general principle of the corruption of water. It forms then

in the soil a kind of interior marsh; the sun and the dryness of the air exhale a part. These waters, motionless, diminished, heated by the sun in the warmth of the long summer days, ferment, become altered, and are sometimes so much corrupted as to become black. They are then unwholesome drink for men; and at the same time the exhalations of a soil impregnated with corrupted waters, become unhealthy, as those of the borders of marshes, of ponds, and of all lands temporarily inundated, and which the summer sun strikes upon, after the waters are drawn off. Thus, among the inhabitants of a district, in the midst of an atmosphere mixed with deleterious exhalations, numerous intermittent fevers occur, without the necessity of the appearance of any marshes or ponds in the country."

GOV. M'DUFFIE'S PLANTATION.

Extract of a letter dated Abbeville District, S.C. Oct. 28.

Seeing some time ago an article copied into the Chronicle, speculating on Gov. M'Duffie's abilities and probable success as a planter, I am induced to offer you the following remarks, which you are at liberty to publish if you think proper.

Gov. M'Duffie has this year a splendid crop of cotton, and a large surplus of provisions. He has already picked out 200 bags, weighing 350 lbs. each, and will in all probability make 150 more. His force this year is not so large as usual, several hands having been sent to the Vauclose Factory, and others are engaged in different business—This crop will be made and saved by 50 efficient hands. Thus it will be seen, if the estimate I have made of the crop proves to be correct, (and I am sure it will be very nearly so,) each hand will make 7 bags! This is the best crop the Governor ever made, and very much to his credit as a planter. It is the first crop he has had the management and control of since the commencement of his Congressional career. The order, neatness, and systematical arrangement of his plantation are admirable; and the careful attention which he gives to the comforts of his negroes generally, and particularly to their cabins, is deserving of all praise.

BEEET SUGAR.

Chester county, always liberal in encouraging every branch of industry calculated to benefit our country, is turning her attention to the manufacture of this article, and during the past season, the feasibility of its cultivation has been actually tested. We were presented last week with a phial of molasses manufactured from the beet root, by Dr. Cook, of our borough. This experiment has been sufficient to prove the practicability and lucrativeness of this branch of industry, if properly attended to. The project of a company to commence the manufacture of Sugar, has been talked of; and we see no reason why it would not flourish—as it would be attended with little hazard, and the income would almost immediately follow the outlay. The process of raising the beet is very simple—not more difficult or troublesome than an ordinary crop of corn or potatoes.—*Village Record*.

[From the Silk Culturist.]

DISEASES OF SHEEP.

The great losses which wool growers frequently sustain in consequence of the sickness and death of large numbers of their flocks, has induced us to compile from a rare and valuable English work, a synopsis of the diseases to which sheep are liable, together with the symptoms by which they are known and the treatment by which they are remedied. The causes of the disease are in some cases assigned, and it is believed if they are carefully avoided and the remedies promptly and faithfully applied, the losses from disease and death would in a great degree be prevented, and the profits arising from their fleeces and young materially increased. As the remedies are simple and the ingredients composing the prescriptions within the reach of every farmer, it is to be hoped that every wool grower who has the misfortune to have a diseased flock will give them a thorough trial.

Fever.—Fever in sheep is an inflamed state of the blood, disordering the eye and mouth, and affecting the whole body though not visibly. When any of the symptoms of a fever appear, the feet of the sheep should be examined, and if found to be hot there is no doubt of the character of the disease. Other diseases will produce an inflammation of the eyes and mouth, but hot feet are an infallible symptom of fever.—This disease is often fatal in itself, and frequently induces others which are equally so. The cause is generally a cold. When only two or three of the flock are affected by it, the case is less desperate; but when many are attacked with it, it is more fatal.

The remedy is to keep the sheep in warmer and more sheltered places, bleed and give the following medicine. Heat a quart of ale, and dissolve in it an ounce of mithridate—add half an ounce of Virginia snake root, and one dram cochineal in powder. This quantity serves for four doses, and one of them is to be given morning and evening. If the sheep is bound in its body, an ounce of lenitive electuary is to be mixed with each dose; but if looser than ordinary it ought not to be checked as it will contribute to the cause.

Purging.—Leave nature to her course when a purging comes on with a fever; but when the fever is abated it should be stopped; and the same remedy that answers for this purpose, may be adopted for such purgings as come on of themselves. Boil a quarter of a pound of raspings of logwood in two quarts of water, till but a quart is left, and when it is nearly boiled down put in a stick of cinnamon, strain it off, and give the sheep a quarter of a pint, four times a day, till the purging ceases.

If this does not produce the desired result, the following addition will render it sure of success. To every dose add a quarter of an ounce of diascordium without honey, and ten grains of Japan earth powdered, and give the doses only morning and evening.

Tag.—The tag is an external disease, owing to the complaint last named. It is a distemper of the tail beginning with filth and foulness, and ending in ulceration.—The tag is situated in the inner part of the tail—it consists of scabs and sores, very painful and wasting to the animal, and is owing to the fouling this part by a purging.

That tag is worst which follows a fever, because the inflamed state of the blood tends to increase the disorder, and when it begins, during the continuance of the disease, the matter of the fever may chance to settle it there. Two things are to be done; the first is to stop the purging; and the other, to clean the tail.

The last mentioned remedy, either in its weaker or stronger form, is to be used to stop the purging, and the tail being clipped, and the sore part laid bare, first wash it with milk and water blood-warm, and then with lime water. After this turn the sheep into a clean dry pasture. Two days after look at it again, and, if not well, repeat the washing, and anoint it with grease and tar mixed together. Twice doing of this is generally sufficient to complete the cure.

Diseases of the Lungs.—Sheep are subject to be diseased in the lungs, which is easily perceived by their breathing or by their coughing. Nothing requires a more speedy remedy; for they grow incurable, when it is neglected but a short time, and die as men in the consumption. Change of their pasture is essential to the cure—without it no remedy is effectual. It is owing to cold, and generally attacks sheep that have been kept on low grounds in wet weather.

When any of the flock exhibit symptoms of diseased lungs, drive them into an enclosed pasture where there is short grass and a gravelly soil; and where there is spring or other running water. Bruise a basket full of the leaves of colt's foot, and press out the juice. Bruise a quantity of plantain leaves and roots together, and press out the juice. Mix these, and bruise as much garlic as will yield about a fourth part as much juice as one of the others. Mix all together, and add to them a pound of honey, an ounce of aniseed, and an ounce and a half of eleccampane. Give a quarter of a pint of this warm, to every sheep that is affected once in a day, and it will by degrees make a perfect cure.

Jaundice.—Sheep are more subject than any other animals to obstructions of the liver. When this is the cause it is seen in a yellowness of the eyes, and a tint of the same kind in the skin. Farmers in some places, call this the choler, or, in their language, the color.

When sheep are attacked with jaundice they should be put into an open pasture, and kept in moderate motion, but not fatigued. Boil in four gallons of water two pounds of fennel roots; the same quantity of parsley roots, and twice as much roots of couch grass, all cut small. When the water is very strong of them, and there is about half the quantity left, strain it off, by pressing it hard. Bruise as much great celandine as will yield three pints of juice, add this to the liquor, and put in three drams of salt of steel. Mix all together, and every day beat so much of it as will serve to give every sheep that is ill, a gill and a half for a dose. This with the forementioned directions, rarely fails of a cure.

Stoppage in the Throat.—Sheep affected with stoppage in the throat, wheeze and breathe with difficulty. It is commonly occasioned by bad pasturage and colds. The remedy is to put them on higher ground, keep them warm and give them the following medicine. Bruise a good quantity of pennyroyal, and squeeze out the juice. Put to a quart of it a pound of honey, and half a pint of

sharp vinegar. Give half a pint of this, blood-warm, every night.

Sturdiness.—This is a giddiness in the head. It is owing principally to rich feeding. The remedy is as follows:

Bleed profusely and give the following medicine. Bruise some roots of wild valerian, squeeze out the juice, heat it, and give a quarter of a pint. Repeat the dose every four hours. When the sheep is recovered, turn it upon the common, or into some barren hilly pasture. It will be kept from relapses by having but little food, and that perfectly wholesome. If the disease returns it is commonly fatal.

Wood Evil.—This disorder is a kind of cramp. It seizes the legs and will often attack a whole flock at once. The cause is cold and wet. Laying under the drip of trees in raining seasons has often occasioned it, and hence its name.

In order to effect a cure the sheep must be removed to a dry pasture and then proper remedies may take effect. The following medicine is recommended. Boil in a large quantity of ale as much common cinquefoil and hedge mustard as can be well stirred into it. When the liquor is very strong, strain it off, and add a pint of juice of valerian root to every gallon. Give half a pint of this morning and evening. Boil in vinegar large quantity of the leaves of hedge mustard, and with the liquor hot rub the legs.

Staggers.—Sheep as well as horses, are sometimes afflicted with the staggers. It is occasioned by improper food. Oak leaves and buds are particularly prejudicial. They bind the bowels and staggers frequently follow. The symptoms are the same as in stardiness, but more violent; and there is generally a trembling, at the same time, in all the limbs.

To cure this disorder dissolve an ounce of asafetida in two quarts of water. Give a quarter of a pint, warm, every three hours. It commonly opens the bowels at the same time that it takes immediate effect on the nervous system, and thus performs a cure. When the sheep are recovered, let them be kept out of the way of a return to the same food, and they will be in no danger of a relapse.

Scab.—This is a disorder to which sheep are very liable. When they are kept in dry wholesome pastures they are but seldom afflicted with the scab; but when they are on low wet grounds, or get under the drippings of trees in bad seasons they are frequently affected by it, in the severest manner. The symptoms are scurfy skins, which in a little time rise to scabs; the wool grows loose and the sheep pine and become lean.

If they are attacked in a season when they can be sheared, it should be immediately done, as nothing is so sure to effect a cure. If the season will not admit of shearing, they must be washed with soap suds, made very strong, and used warm with a piece of flannel or a brush.—After this they must be turned loose into a clean pasture and driven up again as soon as well dried, and the sore parts of the skin must be well wetted with lime water. The scurfy part of the skin must be regarded; and the doing this three times, at two days distance each, will generally effect a cure. But if it fail, the parts that have been thus washed and cleaned, must be anointed with a mixture of equal parts of tar and grease,

and they will soon be perfectly well. No inward medicines are required, for the complaint is only of the skin.

Red Water.—This is an inflammation of the skin that often raises it into blisters, in which are contained a sharp humor, thin, watery and colored with blood. Nothing should be done to strike it in, but the cure must be affected by correcting the bad state of the blood. Sheep afflicted with it should be separated from the flock, otherwise it will be very apt to spread through the whole. They should also be put into a pasture where the grass is sweet, and where they can have access to good water.

Mix half an ounce of sulphur with an ounce of honey; work it well together, and then divide it into two parts. Dissolve one of those in half a pint of juice of nettles, and give it every day for a fortnight. Slit the blisters when they are full of this watery humor, and having let the matter out, wet the place with juice of wormwood. After four days of this course, bleed them; and then continue the same method till they are well.

Foot Worm.—Sheep are liable to breed worms between their feet; principally, however, when they are kept in wet pastures. It is very painful to them, and will make them pine away. It is perceived by their frequent holding up one foot; and by setting it tenderly down.

Let the foot be washed clean, particularly between the toes, and there will be found a little lump like a tuft of hair. This is the head of the worm. It is to be taken out with care, for it is of a tender substance, and if it be broken in the foot, it will occasion inflammation. The best method is to open the flesh on each side of it, and then, by means of a pair of knippers, to take it out. Dress the wound with tar and grease melted together in equal quantities, and turn the sheep loose. It is better to put it into a fresh pasture; for if the same disorder returns, it is generally worse.

Wild Fire.—This is a violent inflammation, not unlike the Saint Anthony's fire, upon the skin in different places; and generally affects the whole flock. Our fore-fathers used to bury the sheep alive with its feet upwards at the door of the fold, superstitiously believing that it acted as a spell to drive away the disease. The following, however, is a more modern and rational method of cure.

Separate such as are affected with the disease from the flock, bleed, and prepare the following external remedy. Bruise the leaves of wild chervil, and add to them as much lime water as will make the whole very soft. When it is beat up together, add as much powder of fenugreek seed as will reduce it to pap; then put it into a pan, and set it in a cool place. Rub the inflamed part carefully with this every evening, and make as much lie on as can be kept there; it will take effect during the time of rest, and is to be repeated as long as there is occasion.

Disorders of the Eyes.—Sheep are often affected with colds falling upon their eyes, and almost blinding them; and, at other times, the same accident even without any visible cause.—The remedy in either case is the same. Press out the juice of great calandine, and drop a quantity of it into the eyes, night and morning.

Dropsy.—Sheep are often swelled with water in their bellies; and this, if not regarded in time, is certain death. There are two ways in which it is lodged; the one is between the outward flesh and the rim; the other within the rim. In the first easy; to the other, nothing can be done.

The method in the first case, is by a coarse kind of tapping. An opening is to be made in the flesh, and a quill thrust in. This will give the water a free passage out, and the wound heals of itself. But when the sheep is emaciated, nature will not have strength to heal it; and the sheep must be examined daily, and the wound dressed with tar and grease. It must also be put into a fresh, dry and wholesome pasture, and then disposed of as soon as recruited, for this is a disorder that never fails to return upon any mismanagement in keeping.

The Rot.—This is the most destructive disease to which sheep are subject. Like the murrain it is contagious and generally spreads through the whole flock, and often over the neighbouring country. Flocks that are fed upon open commons are more subject to it than such as have shelter, and are taken care of at night. It frequently prevails in cold seasons and when dribbling rains come on soon after shearing.—Want of food will also occasion this disease; as will likewise the eating of such grass as is full of unwholesome plants. These are among the causes of this fatal distemper; but the worst and most common is infection. Keep sheep out of the way of these causes of the rot, and the same care will preserve them from most other disorders to which they are liable, damp grounds are always dangerous, and especially in wet seasons.

When a sheep is infected with the rot, the white of the eyes look dull, and they have a faint aspect, the animal is feeble and his skin is foul—the wool comes off in handfuls with the least touch, and the gums look pale and the teeth foul. He will also be dull and listless in motion and heavy, as if his legs were not able to carry him. Many are generally infected at a time, and the first care must be to remove them from the sound ones, and put them in a close fold. They must have but little water, and their food must be hay and oats. Bleeding is destructive in the rot. The fact that sheep fed in salt marshes never have the rot, suggested salt as remedy. It is a good preventive but an infallible cure. Though the farmer can not rely upon it, yet among other remedies, it is highly useful.

The following remedies and treatment have often effected cures. Bruise an ounce of the grains of paradise, and four ounces of juniper berries dried; add to these four pounds of bay salt and half a pound of loaf sugar, grind them well together, and sprinkle some of this upon the hay and oats that are given the sheep. Let this be continued three days, and look from time to time to the eyes, and examine every other way, to see whether they mend or grow worse. If there be signs of amendment, let the same course be continued; if not, the following must be used. Steep four pounds of antimony in two gallons of ale, for a week—then give the sheep this every night and morning, a quarter of a pint at a time. Boil a pound of the roots of avens, and two pounds of the roots of master-wort in two gallons of water, till there is not more than six quarts remaining;

strain this off, and press it hard, then pour a pint of it into a pail full of water that is to be given to the sheep for their drink.

By these means, carefully managed, and under a good regulation in cleanness, dryness and warmth, the rot will often be cured. This is all that can be promised; for there are times when the disease is so rooted, and when the temperature of the air so favors it that nothing will get the better of it. If the sheep have a distaste to the food, because of the salt and other ingredients mixed among it, they must be omitted for two or three feedings, and then give in less quantity.

[From the Genesee Farmer.]

COMPARATIVE PROFIT OF COWS AND SHEEP.

From my own observation, and other lights on the subject which I have been able to obtain, I judge that on the average, it will require one ton and a half of hay, or its equivalent in other keeping, to winter a cow. This will be rarely estimated at less than \$12. To keep her through the summer will require two and a half acres of good pasture. This will be estimated differently according to different valuation of land, but I will say \$7. The interest on the capital vested in the cow, may be \$1.50. According to this estimate, which I am satisfied does not vary far from the truth, the annual expenses incident to keeping a cow, are equal to \$20.50. It is generally understood that it costs about as much to keep a cow one year as she is worth. Such appears to be the fact—and yet she is a very profitable animal. It is believed none is more so.—The value of her produce is next to be estimated.

A good cow, (and when I say good I mean no other than an ordinary cow of the native breed,) may under proper management be expected to produce annually at least 200 pounds of butter. This will be yielded at the rate of about four and a half pounds a week for a month, during which time it is supposed the cow will give milk. The butter at 12½ cents, the lowest price will be worth \$25. The skimmed milk, which may be given to the calf, or to hogs, may be worth \$3. The dung which the cow will be the means of making may be worth \$1. According to this estimate the annual produce of the cow will be equal to 29 dollars, and the balance standing to her credit after paying the expenses of keeping her, will be 8 dollars and 50 cents. Nothing is here estimated for the expenses incident to taking care of the cow, and making the butter. Be these what they may, it is clear that a handsome profit will remain after all the charges are paid. Butter making is probably the most profitable use to which dairy cows can be applied, especially when the scale of business is small, and only a few cows are kept. But when cheese making is the object, the average produce of cows, in that article, is said to range between three and four hundred pounds annually.

In regard to sheep, I assume it as my data, that it costs about the same to keep twelve through the year as one cow. It requires also about the same investment of capital to gain possession of that number of sheep, as to become the owner of a cow. It may appear to cost less to

winter 12 sheep than one cow, because sheep are not usually fed from the barn so long as cattle by several weeks. Yet they derive their living from the farm and are justly chargeable for what they consume. If then it costs the same to keep 12 sheep, as one cow, which I am satisfied will not vary far from the truth, the expenses of keeping that number of sheep through a year, will, according to preceding estimates, amount to \$20-50. Let us see now what will be the value of their produce.

The wool of 12 sheep may weigh 30 lbs.—This quantity of wool, at 50 cents a pound, may be worth \$16. The lambs which the flock will produce, may be worth \$8. The annual income then from 12 sheep will be 24 dollars, while the expense incident to keeping them will be 20 dollars and 50 cents. From these estimates it appears that keeping sheep is a profitable branch of husbandry, but I think it appears that keeping good dairy cows is still more profitable. In either case the husbandman receives considerably more than a full compensation for all his labor and saving of the land which is devoted to other purposes. Under such circumstances how can he fail of becoming a good farmer.

RECIPE TO CURE PORK HAMS.

7 lbs. salt; 3 oz. salt-petre; 6 red peppers; 4 gallons water.

Make a pickle according to these proportions, sufficient to cover your hams well by putting the salt, salt-petre and peppers into the water, cold from the well or spring, and stirring it well till the salt is nearly dissolved. Pack your hams in a barrel or other vessel, and pour your pickle on them, stirring it well at the time, that the undissolved salt may all be poured on your hams. Be careful that they be all covered with the pickle, and kept so for six weeks; then take them out and wash or rinse them off in clean cold water, hang them up and let them drain for a day or two, then smoke them with sugar-maple or hickory chips, or wood, green from the tree, which makes the sweetest and purest smoke of any kind of wood I am acquainted with, and makes it entirely unnecessary to put sugar and molasses in the pickle, as I used to do.

My method of smoking is, if in moderate fall or winter weather, to make one smoke in twenty-four hours—if in severe winter weather, two. The object to be aimed at in regulating the smoke, is, first, to make as little fire as you can, and make a good strong smoke—second, to let your hams get thoroughly cooled through after each smoke, before another's made. Every farmer who uses an axe, knows how rapidly a cold frosty axe collects a pyroligneous acid, or essence of smoke. While hams are cold, they collect it as rapidly, and as they become warm it dries into them. If you increase the heat so as to make them drip the fat, you lessen the weight of your hams and injure their flavor.—With regard to the credit of my hams in market, I will only say that gentlemen in Cleveland, who have used hams of my curing, pronounce them equal to any they have ever seen, and they command the highest price in market.

E. FOOTE.

Brooklyn, Ohio, Sept., 1856.

The following exquisite effusion from the pen of Lindley Murray, places the grammarian before the world in a new point of view. It forms the first article of the October number of the Southern Literary Messenger, just received, from which we expect great gratification, and of which we shall speak more at large when we shall have enjoyed a perusal of its contents.—*Balt. Amer.*

[From the Southern Literary Messenger.]

TO MY WIFE—BY LINDLEY MURRAY.

When on thy bosom I recline,
Enraptur'd still to call thee mine,
To call thee mine for life;
I glory in the sacred ties,
Which modern wits and fools despise,
Of husband and of wife.

One mutual flame inspires our bliss;
The tender look, the melting kiss,
Even years have not destroy'd;
Some sweet sensation, ever new,
Springs up and proves the maxim true,
That love can ne'r be cloy'd.

Have I a wish?—'tis all for thee,
Hast thou a wish?—'tis all for me.
So soft our moments move,
That angels look with ardent gaze,
Well pleased to see our happy days,
And bid us live—and love.

If cares arise—and cares will come—
Thy bosom is my softest home;
I'll lull me there to rest;
And is there aught disturbs my fair?
I'll bid her sigh out every care,
And lose it in my breast.

Have I a wish?—'tis all her own;
All her's and mine are roll'd in one—
Our hearts are so entwin'd,
That, like the ivy round the tree,
Bound up in closest amity,
'Tis death to be disjoined.

THE FIELD OF CORN.

Let others praise the myrtle flowers
From southern summers sprung,
The glory of Italian bowers
By bard and beauty sung;
While Rosalie's endearing grace
Is in my memory borne,
I'll not forget our trysting-place
Was in the field of corn.

The branching vines beneath our feet
No purple clusters bore,
But fruit more sunny-hued and sweet—
The pumpkin's yellow store.
The plaintive quail that harbor'd near
Prolong'd his note forlorn,
And every sigh and sound was dear
Among the Indian corn.

The green and trailing leaves at last
Were faded, crisp, and sere,
And over them the autumn blast
Bewail'd their ruin drear.
By reapers from the tassell'd stalk
The golden ear was torn,
And desolate became our walk
Within the field of corn.

CAULIFLOWER SEED.

I offer for sale a superior lot of early Cauliflower seed for fall sowing, to insure a certain crop of large Heads of this very desirable vegetable, the seed should be sown in the month of September in frames and planted in very rich well tilled light soil.

aug 30

R. SINCLAIR, Jr.
Light near Pratt-st. whf.

DUTCH BULBOUS FLOWER ROOTS.



The increased desire and spirit exhibited the last season to cultivate Flowers and other ornamental plants, has induced us to obtain from Holland an assortment of Tulips, Hyacinths, and other Bulbous Flower Roots.

Those now on hand are just received, and are particularly large,

strong and of the finest kinds. They consist of the following, viz.

- 150 sorts double and single Hyacinths
- 75 do Early Bizarres, Bybloem, and double Tulips
- 20 do single and double Narcissus
- 5 do Crocus
- 14 do superb Amaryllis at 25c. a \$10 each
- 8 do Crown Imperials

Also, Gladiolus or Sword Lily, Iris, Arum Dracunculus or Dragon Plant, Anemone, Snow Drops, &c. &c.—And early next spring we will offer for sale a superb collection of Double Dahlias, consisting of 200 named sorts, inferior to none in this country. Also, Jacobian Lily Roots, double Tuberoses, Tyger Flour and other delicate Bulbs.

ROBERT SINCLAIR, jr. & CO.

Light near Pratt street whf.

Catalogues of Bulbs and directions for planting will be furnished on demand. no 29

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

POINTERS FOR SALE.

A thorough bred Pointer Slut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper. no 15 4t

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oc 4

CONTENTS OF THIS NUMBER.

Change of Proprietorship of the Farmer & Gardener—address of the Editor—a public spirited patriot—sale of German grain at N. York—stock corn—Clairmont Nursery—seed corn—appeal to Virginia farmers and planters—time of sowing wheat—garlicky flour—culture of silk—gathering and pruning fruit—pruning trees—draining—Gov. M'Duffie's plantation—beet sugar—diseases of sheep—comparative profit of cows and sheep—recipe to cure pork hams—poetry, "To my wife"—The field of corn—advertisements, prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	
CATTLE, on the hoof,	100lbs.	5 75	7 50
CORN, yellow,	bushel.	88	90
White,	"	85	86
COTTON, Virginia,	pound.		
North Carolina,	"		
Upland,	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 50	13 00
Do. do. baker's,	"		
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	
" wagon price,	"	10 25	
City Mills, super,	"		10 00
Do extra,	"	10 25	10 50
Susquehanna,	"		10 50
Rye,	"	7 00	
Kiln-dried Meal, in hhds.	hhd.		21 00
do. in bbls.	bbl.		4 62
GRASS SEEDS, red Clover,	bushel.	7 00	7 25
Timothy (herds of the north)	"	3 25	3 75
Orchard,	"		2 75
Tall meadow Oat,	"		2 75
Herds, or red top,	"		1 25
HAY, in bulk,	ton.		20 00
HEME, country, dew rotted,	pound.	6	7
water rotted,	"	7	8
HOGS, on the hoof,	100lb.	8 00	8 25
Slaughtered,	"		
HOPS—first sort,	pound.	16	
second,	"	14	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"		48
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.	4 00	5 00
Ground,	barrel.	1 50	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.	115	125
Susquehanna,	"		
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"		
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 90
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"		
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.		2 25
Red, best,	"	2 05	2 13
inferior,	"	1 40	1 90
WHISKEY, 1st pf. in bbls. }	gallon.	42	42 1/2
" in hhds. }	"	39 1/2	
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	
To Wheeling,	"	2 00	
WOOL, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45	50 28 30
Three fourths Merino,	"	42	45 26 28
One half do,	"	38	42 26 28
Common & one fourth Meri.	"	55	38 26 28
Pulled,	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elia Plummer, Chestertown, Md. no 15 21

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured, ..	pound.	17	18
Shoulders, .. do,	"		15
Middlings, .. do,	"		15
Assorted, country,	"		14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old, ..	each.	4 50	6 00
COWS, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	1 94	2 00
CHOP RYE,	"		2 25
Eggs,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.		
No. 2,	"		
Herrings, salted, No. 1,	"	3 50	
Mackerel, No. 1, ———— No. 2	"	9 50	10 50
No. 3,	"		6 75
Cod, salted,	cwt.		
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	
Branch at Baltimore,	do	
Other Branches,	do	
MARYLAND.		
Banks in Baltimore,	par	
Hagerstown,	3/4	
Frederick,	do	
Westminster,	do	
Farmers' Bank of Mary'd, do	do	
Do. payable at Easton,	do	
Salisbury,	5 per ct. dis.	
Cumberland,	1	
Millington,	do	
DISTRICT.		
Washington, }		
Georgetown, } Banks, 1.		
Alexandria, }		
PENNSYLVANIA.		
Philadelphia,	3/4	
Chambersburg,	1	
Gettysburg,	do	
Pittsburg,	2a2 1/2	
York,	2a	
Other Pennsylvania Bks. 1 1/2		
Delaware (under \$5),	3a4	
Do. (over 5),	2a3	
Michigan Banks,	6a	
Canadian do,	6a	
VIRGINIA.		
Farmers Bank of Virginia	1	
Bank of Virginia,	do	
Branch at Fredericksburg	do	
Petersburg,	do	
Norfolk,	do	
Winchester,	do	
Lynchburg,	do	
Danville,	do	
Bank of the Valley,	do	
Branch at Romney,	1	
Do. Charlestown,	do	
Do. Leesburg,	do	
Wheeling Banks,	2a2 1/2	
Ohio Banks, generally	3a3 1/2	
New Jersey Banks gen.	1 1/2	
New York City,	3a	
New York State,	2 1/2	
Massachusetts,	2a2 1/2	
Connecticut,	2a2 1/2	
New Hampshire,	2a2 1/2	
Maine,	2a2 1/2	
Rhode Island,	2a2 1/2	
North Carolina,	3 1/4	
South Carolina,	3 1/4	
Georgia,	3 1/4	
New Orleans,	6	

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive a Prince & Son's printed bills with their signature and guarantee. Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltimore

sep 27

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved Jacks, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 13 1/2 hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller Jacks at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address I. I. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth st. Philadelphia. Philadelphia, Oct. 13th, 1836. oe 25

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	
11 " Permanent Bottom 28, do do do	\$33
13 " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Norland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Like rise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 18

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 32.

BALTIMORE, MD. DECEMBER 6, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, DEC. 6. 1836.

CHANGE OF PROPRIETORSHIP.

The undersigned avail themselves of this occasion to notify the patrons and friends of the *Farmer and Gardener*, that they have bought out all the interest in said publication lately held and owned by Messrs. Sinclair & Moore, and Robert Sinclair, junior, together with all the debts due the establishment from the 1st day of May, 1835, the period at which it was transferred to the said Sinclair & Moore, and R. Sinclair, jr.

All payments will henceforth be made to the undersigned, who take this opportunity to respectfully solicit such of the subscribers to their journal as may be in arrears to forward the respective amounts due them by mail.

The business of the firm will be conducted under the name of *E. P. Roberts and Sands & Neilson*, to whom all communications upon business connected with the establishment will be henceforth addressed.

The editorial department as heretofore will be conducted by Mr. E. P. Roberts.

E. P. ROBERTS,
SANDS & NEILSON.

TO THE PATRONS OF THE FARMER & GARDENER.

The subscribers to this journal will perceive by the above annunciation, that the undersigned has become joint proprietor thereof, having in conjunction with Messrs. Sands & Neilson, purchased the entire interest of its late proprietors; and in thus making the change known, the occasion seems a fit one to call upon those of its patrons who may be in arrears to enclose by mail the sums which may be respectively due by them, in order that he may be thus enabled to render that justice to the work which its profound importance demands. The science of Agriculture, like all others, is progressive. Every day unfolds some

new light and discloses some fact of magnitude to the business of the husbandman. In every direction, both in Europe and America, men of learning and of science are bending their attention to the culture of the soil, and imparting enhanced interest to the subject by clothing it with those beauties which science and philosophy know so well how to throw around the chosen objects of their pursuits. To enable the undersigned to avail himself of the flood of intelligence, which the European writers are daily shedding upon the noble science of Agriculture, through their numerous periodicals, he designs, and to that end, has made arrangements for procuring from that quarter, such of the leading journals engaged in furthering the cause of husbandry, as will place it in his power to lay before his readers every thing that may be passing in Europe calculated to illumine the agricultural mind, and advance the prosperity and welfare of the tillers of the earth. But to effect this desirable object—an object near and dear to every sympathy of his heart:—for he is proud to say, he became connected with this journal from motives and feelings of devotion to the cause of agriculture—it is indispensable that the patrons of the paper should, in a spirit of justice and reciprocity second his views. To effectuate the object he has so much at heart, will require an outlay of considerable funds; but as the promotion of the agriculture of his country is, in his estimation, infinitely above all compromise with merely personal considerations, he trusts he is incapable of pausing to make a pecuniary calculation, when interests of such deep concern are at stake.

It is now eighteen months since the undersigned took charge of the editorial department of this paper, and while it does not become him to speak of the evidences of favor which his labors have received from the public, it may not be indelicate to say, that he brought to the discharge of the duties of his station, a zeal that never flags, and a devotion bordering on infatuation. And to that zeal and devotion more than personal qualifications it may be, that he is to ascribe the solid marks of friendship which it has been his good fortune to receive from subscribers in Virginia, North Carolina, South Carolina,

Georgia, Alabama and other states. Many gentlemen residing in those states having, unsolicited by him, generously volunteered for that purpose and procured him subscribers. Such instances of the kind feelings of the patrons of the paper, did not fail to beget in his mind a correspondent emotion of gratitude, and to sweeten the toils of his avocation.

The undersigned mentions these facts, so honorable to the gentlemen to whom he is indebted for such disinterestedness, and so grateful to his own sense of gratitude, because he desires in a spirit which he cherishes as holy, to manifest the profound degree of sensibility with which he is inspired, by making an offering to the cause of Agriculture. On the commencement of the next volume, the proprietors propose reducing the subscription price agreeably to the following terms. All subscriptions which are paid in advance, or within one month from the commencement of the subscription year, will be *Two dollars and a half*:—all which remain unpaid beyond that period, will be charged at the rate of *Three dollars* per year.

The object of the undersigned, and his co-partners, in making this reduction, is, to place the work within the reach of every farmer and planter, believing that nothing so tends to stimulate the exertions of those engaged in it, as reading exclusively devoted to the practice and science of agriculture. May the undersigned then not make an appeal to each of his readers, who feel an interest in promoting the good cause, to procure from among their neighbors and friends at least one new subscriber for this work. If the undersigned thought that mercenary motives influenced him in proffering this request, or that it would be so construed—if he could believe it would even be considered as indelicate, he prays his readers to believe him that it never would have been made. But when he has so many flattering proofs of the facility with which several of his subscribers have procured additional names for him—when he reflects that those favors were unasked—when he considers that his object now is, by obtaining additional patronage, to enable him to so reduce the price of

his paper, as to make it an inducement for farmers in every circumstance of life to take it—and when he is vain enough to hope that if his journal is extensively diffused, its benefits will be equally so, he cannot doubt that his present request will be met in the proper spirit, and that his exertions to promote the great cause of husbandry will be sustained.

The undersigned will make one other request of his Agricultural readers, and he feels emboldened to do so from a conscientious belief that it is required by the best interests of those to whom it is addressed. When he took charge of the editorial department of this paper, he had no other qualifications for the discharge of its duties than a course of Agricultural reading, which for many years had occupied his every leisure hour, a passionate devotion to the science and cause of husbandry, and a desire to be serviceable to his countrymen. And although he felt that his familiarity with the general principles of the art, would be serviceable in enabling him to meet intelligently the demands which his new station would make upon him—although he looked forward to the impulses by which he would be guided to render the arduous task he had assumed at least a source of pleasure to himself,—he entered upon the discharge of his duties with feelings of embarrassment, lest his labors might not prove as satisfactory and profitable to the public as he could wish. Since then, however, he has become engaged, on a small scale, in the practical duties of a husbandman, and while he has found immense benefit from the previous course of his readings, he finds that he has much yet to learn before he shall feel himself authorized to aspire to the title of a good farmer. Every day's experience but serves to convince him that it is to men of long practical experience, that the agriculturist should look for those unerring lights and broad landmarks so necessary to enable him to cultivate the soil with economy and profit. His mind having honestly come to this conviction, he would act the part of a dishonest sentinel over the interests of those with whom he is now associated as a very humble coadjutor, did he not ask of those of his agricultural patrons, who are practical men, to submit through the columns of the *Farmer and Gardener*, the results of their experience and practice. However delightful the treat may be to the philosophical mind to dwell upon the emanations from the minds of men conversant with science as connected with agriculture—and he admits they are intensely interesting—still there is another department that should be filled to render a work on Husbandry complete. The undersigned feels

that he need not say that he alludes to *communications by practical men* engaged in the culture of the earth. With farmers and planters he knows that there is a repugnance entertained, to appearing before the public in print: and while he fully appreciates the delicacy of the sentiment which operates upon their minds, he believes that the *cause* should, of itself, be competent to urge every man to cast aside all aversions of the kind alluded to, and generously throw his mite into the common stock of knowledge. There is no observant farmer who may not find something, in the course of the year to develop of importance to his brethren, and why then should he withhold it? There is no justifiable reason why he should; but on the contrary, every consideration of interest, utility and public good, conspire to induce him not to conceal his light under a bushel. If it should be urged, that the business of farming do not qualify those engaged in it for writing, the undersigned would remark, that he has derived more information in an hour's conversation from a friend who follows the plough, than he could have derived from a day's reading, and that upon one occasion, he prevailed upon him to overcome his unwillingness to commit his thoughts to paper, and almost in the very words in which he had communicated his views orally, he produced one of the very ablest communications upon grasses that the undersigned ever read. This did not surprise him, because the duties of the farmer are calculated to call into action all the energies of mind as well as of body—it is emphatically a life of thought as well as care, and it may be asked, who is so well calculated to give a correct description of the *modus operandi*, as he who is familiar with the intricacies and details of farming? Such being the impressions and views of the undersigned, he again reiterates his request, that his subscribers will favor him with communications upon all subjects connected with the culture of the productions of the earth, and the improvement of the soil, and begs leave to remain the public's

Obedient servant,

EDWD. P. ROBERTS.

Cochran's many chambered rifle has recently been submitted to a fair and distinct trial at the U. S. Arsenal at Washington, under the supervision of Capt. Ramsay and Lieut. Scott. A correspondent of the *Intelligencer* gathers the following facts from the report of these gentlemen on the subject:

"The rifle, it appears, was fired 1,008 times, and was in the same order at the termination as at the commencement of the firing. In order to

test the influence of rain and wet from other causes, water was put into the chambers, and left there for an hour and ten minutes; the rifle was then discharged, and with the same ease and effect as previously. The cylinder in this rifle thus contained nine chambers; and in a comparative trial instituted between it and Hall's carbine, both pieces having been loaded, the whole nine discharges were made from the rifle before a second could be made from the carbine.

During the whole trial not a single cap missed fire; and at the distance of 150 yards, with 10 grains of powder, the ball perforated an inch pine board, and was flattened against a brick wall behind it.

Some apprehensions were entertained that, from the contiguity of the charges, accidental ignition might be produced. To prove the entire freedom of his rifle from this danger, Mr. Cochran placed loose powder in the chambers, over the balls, and around the caps, and, so circumstanced, it was discharged safely as before.

Capt. Ramsay observes, that with the closest scrutiny he could not discover any objection to Mr. Cochran's invention; and Lieut. Scott says, that for simplicity it surpasses any thing of the kind he has ever seen, and that its quality as a fire arm can be summed up in three words, "IT IS PERFECT."

[From the Northampton Courier.]

DEFOLIATION CONFIRMED.

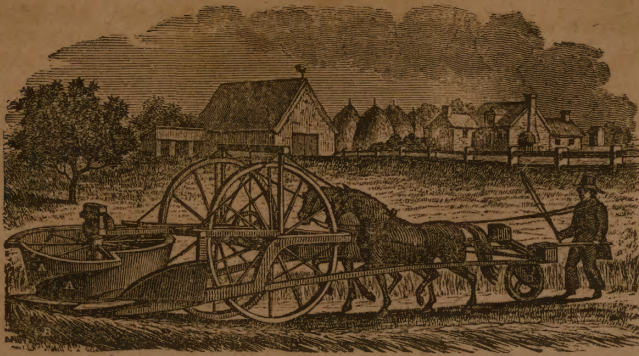
During the present year, experiments have been made in feeding silkworms, and gathering the foliage of the Chinese Mulberry, several times, during the season of feeding, and this without injury to the plant, but evidently to the improvement and augmentation of foliage. That this practice is adopted in China, is abundantly evident from a volume of splendid paintings, just received through the politeness of a gentleman of intelligence who has for years been conversant with China. These elegant paintings, illustrating the whole process of culture, from the preparation of the ground to the silk in the skein, may be seen at my office in the Court House. Some further description of these paintings may be made at our leisure. It appears that the same method is adopted in China, which is the result of experience, with us. That while feeding, and depriving the plants of foliage, the topmost shoots must be carefully preserved, but when feeding is over, then to nip off the leading shoots, to promote the formation of wood, and at the close of the season, head down the plant, the stump of which, in our latitude, to be slightly covered with earth during winter. These several operations are illustrated in the above paintings, and the leaf of the mulberry decidedly resembles the leaf of the Canton mulberry, so called, being the product of seed which I imported in 1834.

Within a few days, a small lot of trees, and some more seed have been received through the agency of gentlemen of great respectability. The trees are not for sale, but some of the seed would be parted with to accommodate the friends of mulberry culture. Although it comes with high recommendations, yet as seed is sometimes injured in transportation by water, should the seed not vegetate, or prove a *total failure*, four-fifths of the purchase money will be restored to the purchaser, when called for.

D. S.

WILSON'S

MOWING



MACHINE,

(cut)

OR

GRASS AND GRAIN CUTTER.

Capt. Alex. M. Wilson, of Rhinebeck, Dutchess County, New York, who has recently invented a machine with the above title, waited upon us some days since to invite us to inspect the *model*, which he was taking on to Washington, and we regret that circumstances beyond our control put it out of our power to avail ourself of his polite invitation, as from the high commendations it has met with from many of the most distinguished farmers of the state of New York, we are not only satisfied that it is calculated to be of eminent service to those of the agricultural world whose localities are favorable to its operation, but we feel assured from an inspection of the drawing that we lost a chance of viewing a most simple and therefore efficient labor-saving machine.

Among the gentlemen who were present and witnessed the operation of Capt. Wilson's Machine during the last summer, and who bear the strongest testimony in its favor, we observe the names of S. Blydenburgh, of Bethlehem, N. Y. Dr. Samuel Shaw, Thomas Dunn, Esq. Col. Erastus Chapin, and George Hanford, of Albany, Henry Vandenberg, of Shodack, Rev. E. P. Stimson, of do., James Wylie, of Easton, New York, G. Van Rensselaer and James Jordon, Esqs. of Greenbush, the Hon. Peter R. Livingston, and several other distinguished individuals. These persons testified that they witnessed the operation of the machine, and that notwithstanding the ground was very uneven and the grass in bad order, that the performance was all that could reasonably be expected; that it mowed by the power of two horses as fast as the horses could walk, leaving the work in as good order as is usually left by good mowers, and would cut about an acre an hour; that as the machine possesses the power to keep itself completely sharp, no time is lost in sharpening it, and that as its construction

is simple, they see no reason to suppose it more liable to get out of order than any other farming utensil.

By aid of the drawing, which we have caused to be prefixed to this notice for the accommodation of our readers, and the description which follows, they will be able to comprehend the principles of the Machine. The description we borrow from our old co-laborer, S. Blydenburgh, Esq. editor of that excellent work, the Silk Worm, than whom few gentlemen are better qualified to speak upon matters connected with machinery.—He says:—

"The machine consists of a carriage on two wheels, propelled by one or two horses, oxen or other beasts of burden, travelling in the rear and pushing it forward. In the front, at the bottom, is a horizontal wheel upon an upright shaft, which shaft and wheel receive a rotary motion, communicated by gear from the main axle, which revolves with its wheels, as the machine goes forward. The diameter of this horizontal wheel, with the addition of the knives projecting from its edge, measures the width of the swath, which is cut with the knives as the wheel goes forward, revolving rapidly and lying close to the ground.—The apparatus which sustains the cutting wheel is so constructed as to accommodate its height to any inequalities in the ground, and to give it any inclination required. The knives are sharpened by their own operation, without stopping the machine. There is also attached to the upper side of the cutting wheel, a rim which gathers the grass as it is cut, and lays it in a swath more regularly than it can be laid by the scythe."

In conversing with Captain Wilson, we learned from him that he intends his machine particularly for champaign, level fields, for intervalle lands, and prairies; that although it would act efficiently on grounds not too much broken, it never entered into his calculation that it would be adapted to such places.

On the eastern shore of this State, the lower part of Virginia, in the meadows of Delaware,

New Jersey, and Pennsylvania, and in the extensive bottoms and Prairies of the West, we believe that this machine would prove of incalculable value, in reducing the enormous expense attending the employment of manual labor in those regions.

We found Capt. Wilson not only a highly intelligent gentleman, but to possess all that frankness for which the American tars are so distinguished. While he set forth what he considered the proper merits of his mowing machine, he did not claim for it the possession of powers so extraordinary as to tax credulity. He believes that with either oxen or horses as the motive power, it will do the work of *ten men*. If it can do this, it may, indeed, be truly called a labor-saving machine, and as every thing which tends to overcome the *expense* attendant upon farming operations serves to increase the value of agricultural productions, we believe that his invention will find favor with the intelligent of his *present* calling.—His residence is at Rhinebeck, New York, where those disposed to purchase rights for states, counties, or sections of country, may communicate with him personally, or by letter, *post paid*.

COMMUNICATED.

MORUS MULTICAULIS.

To the editor of the Farmer and Gardener:

I have had so many applications for information how to prevent the *Morus Multicaulis* from injury by winter weather, that I have concluded to give you my ideas on the subject for publication in the Farmer & Gardener.

If the *Morus Multicaulis* is planted on *high dry ground*, it will never suffer from the frost of winter. It is only when cultivated on low, rich, and often rather wet soil, that the winter ever injures them. I never lost a tree nor a bud; but I always cultivated them on high and rather poor soil, and raise the young trees from cuttings in a hot-bed, in the manner described in my letter in your Silk Manual, to give them an early start that they may ripen their wood perfectly before the severe weather of the Fall sets in. To preserve the *Morus Multicaulis* trees from frost you may either wrap them well in straw as they stand in the ground, or take them up, and bury their roots in the ground of a cellar, or under a shed open to the South, throwing straw or bass-matting over the tops, and set them out again in the Spring on *high ground*, where they will want no other protection in future. Cuttings may be taken off in the fall and buried in the ground a foot deep, and they will keep perfectly fresh to plant in the Spring, or they may be wrapped in green living moss, packed in a box close, and put in a cellar. The branches that grew this last season are the proper ones for cuttings.

Yours, &c., &c.,

GIDEON B. SMITH.

[From the Cultivator.]

LEGISLATIVE ENCOURAGEMENT TO AGRICULTURE.

We think it pretty well settled, that the law for distributing, among the several states, the surplus moneys which shall remain in the national treasury on the first day of next month, **WILL NOT** be repealed; and that this state will receive, as her distributive share of the fund, if her legislature do not reject the proffered boon, more than **SIX MILLIONS** of dollars. The suggestion that this money is to be received in the nature of a loan, to be returned again to the national treasury, we deem fallacious. It is an excess, above the reasonable wants of the government, and if not distributed, it is apprehended, will be uselessly expended. If expended by the states, in education, internal improvements and the encouragement of agriculture, its benefits will be palpably abiding. We shall at all times be obliged to contribute our share, in one way or other, of the expenses of the general government, even if we decline to take the six millions—and we shall have to contribute no more than our share if we do take them. Hence it admits of no doubt that we ought to take the money. But were it even a loan, to be refunded, the money will be expended, and will have to be paid, directly or indirectly, by the consuming land-holding interest; and it is therefore right, from this consideration alone, that a portion should go to increase the value and products of the land.

It is important, therefore, to every class of our citizens, that in the application of these moneys, by our legislature, some permanent provision should be made to encourage and improve the labors of agriculture. The present time is full of admonition, which cannot be misapprehended, that the substantial interests of the state are mainly dependent upon her agriculture—that this is in fact the commander, or balance wheel, which controls and regulates all the minor machinery of society. The present high price of every article of farm produce, and our humiliating dependence upon foreign nations for bread stuffs, to avert the evils of famine, should surely teach us the necessity of giving to that great branch of national industry, which feeds and enriches us all, the substantial aid which shall stimulate its exertions, instruct and aid its labors, and multiply its products. Every dollar judiciously applied to this object, will be like seed deposited in good soil—it will yield its fifty fold and its hundred fold, and the increase will alike add to the wealth and comforts of all—to the rich and the poor—to the merchant, mechanic, manufacturer, and the farmer. It will benefit all, because all will participate in the general prosperity, which nothing so much promotes as a high state of agricultural improvement.

We will venture to suggest a proposition for public consideration; and we would impress it upon the farming community, and upon all others who may approve of this suggestion, to take immediate steps to memorialize the legislature, and to instruct their representatives, in the matter. The proposition is this, that the legislature be asked to appropriate *two hundred thousand dollars*, or **ONE THIRTIETH PART**, of the sum which we are expected to receive in January, for

the improvement of agriculture; and that a portion of this sum, say one half or more, be specially set apart to sustain, for a term of years, county agricultural societies.

We will not now stop to prove the utility of agricultural societies. It would be supererogation. They have won for themselves a reputation for usefulness. They have produced the greatest benefits, to the moral habits as well as to the pecuniary interests, of all communities where they have been well conducted. For proof of this, we refer to Great Britain, to France, to our sister states and our own state. But they want here, what they receive elsewhere, to develop all their usefulness—the aid and patronage of government. Massachusetts has adopted a liberal policy in these matters, and experienced its wisdom; she gives to her county societies a sum equal to what the inhabitants of each respectively raise for this purpose; and she finds that these gratuities, after fertilizing her soil, and improving the moral condition of her population, flow back to her treasury again in increased volume.

Our remarks upon this subject apply to other states as well as to New-York. There never was so auspicious an opportunity, and such may never again occur, for the farmers to claim from the legislative bodies of our country, that aid, which the interests of agriculture, and of the nation, demand, as the present. They have hitherto obtained little or no direct aid, because they have not asked for it. If the claim is made promptly, and with spirit and unanimity, it will not, it cannot be refused. No time should be lost, therefore; and if our brother journalists would prompt their readers on the subject, we should hope for the best results.

It was resolved, in the last State Agricultural Convention, that another convention should be held at the Capitol, in Albany, on the first Thursday in February next, at 4 o'clock, P. M. This will afford a favorable opportunity, which we trust will not be lost, of concentrating the public feeling upon this subject; and we hope the importance of the subject will induce a full meeting on that occasion.

APPLE MOLASSES.

BY TRY AND SEE.

Brother farmers, you will listen to me a few minutes, while I tell you how to provide yourself with a first rate article, and one of prime necessity. You are probably in something of a haste, though I hope you will have your potatoes dug and safe in your cellar, for there are many things a farmer has to do to be ready for winter. It is just about election time also, and every farmer should manage so as to be able to drop in at the poll and give his vote for a good and true; but do not do, as many will, make the privilege of voting, an excuse for spending a whole day at the tavern, imbibing "wet damnation."

If you are a married man, as I hope you are, for no other one has a consistent claim to the character of a good citizen, you know, or if you do not, your wife does, that it costs no trifling sum to provide sweetening for the family, while there is no possibility of living without it; and experience has fully shown me, that for many of the purposes of domestic cookery, apple molasses is

far preferable to West India, while it is at the same time much cheaper.

I make little cider; my apples are worth more fed to my hogs than for cider; but I make a practice of selecting my best sweet apples, those that furnish the richest, heaviest liquor, and make a cheese from them, using the cider thus obtained for making apple or quince preserves, boiling down for molasses, and keeping two or three barrels for drink, or ultimate conversion into vinegar. When new from the press, and before fermentation commences, that which I intend for boiling is brought to the house, and boiled in brass, to the proper consistence; taking care not to burn it, as that gives the molasses a disagreeable flavour, and taking off all the scum that rises during the process. The quantity to be boiled, or the number of barrels of cider required to make one of molasses, will depend greatly on the kind of apples used, and the richness of the new liquor. Four, or four and a half are generally sufficient, but when care is not used in making the selection of apples, five barrels may be necessary, but let it take more or less, enough must be used to make the molasses, when cold, as thick as the best West India. When boiled sufficiently, it should be turned into vessels to cool, and from them transferred to a new sweet barrel, put into a cool cellar, where it will keep without trouble, and be ready for use at all times.

Molasses made in this way will be pure, and possess a vinous or rather brandied flavour, which makes it far superior to the West India for mince, apple, or tart pies, though where the apples used are very sour, a small quantity of imported molasses may be advantageously used. It is also excellent for making beer in the summer, giving it a briskness and flavour which common molasses will not; in short, there are but few uses to which molasses is applied in which it will not be found equal or superior to the other. Its cheapness should also be a decided recommendation with the farmer. The cider from which I manufacture my molasses is worth at the press a dollar a barrel, and it is worth a dollar to reduce it to molasses, thus making the cost of a barrel of molasses, allowing four and a half barrels of cider to be used, \$5.50. The price of common molasses will average about 50 cents a gallon, or sixteen dollars a barrel, making a saving to the farmer in the use of apple molasses of about ten dollars per barrel.

TRY AND SEE.

DEVELOPMENT OF VEGETABLES.

Farther proofs of design may be collected from an examination into the modes in which these structures, so admirably adapted to their objects, have been gradually formed. Confining our attention to vascular plants, in which the process of development has been studied with the greatest attention and success, we find that nature has pursued two different plans in conducting their growth. In the greater number, the successive additions to the substance of the stem are made on the exterior side of the parts from which they proceed. This mode is adopted in what are called *Exogenous plants*. In others, the growth is the result of additions made internally; a plan which is followed in all *Endogenous plants*. The oak, the elm, the beech, the pine, and all the trees

of the northern regions, belong to the first of these divisions. The palm tribe, such as the date, the cocoa nut tree, and indeed a large proportion of the trees of tropical climates, together with the sugar cane, the bamboo, and all graminaceous and lilaceous plants, belong to the latter. We shall first inquire into the endogenous mode of growth, as being the simplest of these two kinds of vegetable development.

A palm tree may be taken as an example as the mode of growth in endogenous plants. The stem of this tree is usually perfectly cylindrical, attains a great height, and bears on its summit a tuft of leaves. It is composed of an extremely dense external cylindric layer of wood; but the texture of the interior becomes gradually softer and more porous as it comes nearer to the centre; though with regard to its essential character it appears to be uniform in every part, having neither medullary rays, nor true outward bark, nor any central pith; in all of which respects it differs totally from the ordinary exogenous trees.

The first stage of its growth consists in the appearance of a circle of leaves, which shoot upwards from the neck of the plant, and attain, during the first year, a certain size. The following year, another circle of leaves arises; but they grow from the interior of the former circle, which they force outwards as their vegetation advances, and as ligneous matter is deposited within them. Thus, each succeeding year brings with it a fresh crop of leaves, intermixed with ligneous or woody matter, which leaves, exert an outward pressure, and stretch out the preceding layers that enclose them; until the latter, acquiring greater density, no longer admit of farther distention, and remain permanently fixed. This happens first to the outermost layer, which is the oldest; then each succeeding layer becomes consolidated in its turn. As soon as the outer layer has become too hard to yield to the pressure from within, the growth of the inner layers is immediately directed upwards; so that they each rise in succession by distinct stages, always proceeding from the interior; a mode of development which has been compared by De Candolle, to the drawing out of the sliding tubes of a telescope. The whole stem, whatever height it may attain, never increases its diameter after its outward layer has been consolidated. A circle of leaves annually sprouts from the margin of wood; these, when they fall off in autumn, leave on the stem certain traces of their former existence, consisting of a circular impression round the stem. The age of the tree may accordingly be estimated by the number of these circles, or knots, which appear along its stem. The successive knots which appear in the stems of other endogenous plants, as may be observed in growing corn, and also in various grasses, may be traced to a similar origin.

The structure of exogenous trees is more complicated: for, when fully grown, they are composed of two principal parts, the *wood* and the *bark*. The woody portion exhibits a farther division into *pith*, which occupies the centre, and consists of larger vesicles, not cohering very closely, but forming a light and spongy texture, readily permeable to liquids and to air; the *harder wood*, which surrounds the pith, in concentric rings, or layers; and the softer wood, or *alburnum*, which is also disposed in concentric layers on the outside

of the former. Each of these concentric layers of wood and alburnum may be farther distinguished into an inner and outer portion; the former being of less density than the latter, and consisting of a lighter cellular tissue; while the outer portion is composed of the denser woody fibres, resulting from the union of numerous vessels with a cellular tissue, termed the *cellular envelope*. Of this envelope the exterior surface is called the *epidermis*.

All these concentric zones may be readily distinguished in a horizontal section of the stem; which also presents a number of lines called *medullary rays*, radiating from the pith to the circumference. They are composed chiefly of large cells, extending transversely, or in the direction of the diameter of the tree, and composing by their union continuous vertical planes the whole length of the trunk.

Every vegetable stem, and also every branch which arises from it, is developed from a germ, or bud, which is originally of inconceivable minuteness, and totally imperceptible by any optical means of which we have the command. As soon as it becomes visible, and its structure can be distinguished, it is found to contain within itself the parts which are to arise from it, in miniature, and folded up in the smallest possible compass. The portion destined to form the stem is gradually expanded both in breadth and height, but principally the latter; so that it rises as it grows, during a certain period, until the fibres acquire the solidity and strength necessary not only for their own support, but also for sustaining the parts which are to be farther added. In trees this process generally occupies one whole season; during which the growth of the first layer of wood, with its central pith, and its covering of a layer of bark, is free and unrestrained. On the second year, a fresh impulse being given to vegetation, a new growth commences from the upper end of the original stem, as if it were the development of a new bud; and at the same time a layer of cellular tissue is formed by the deposition of new materials on the outside of the former wood, and between it and the bark. This is followed by a second layer of wood, enveloping the new or cellular tissue.

The effect of this new growth is to compress the new layer of wood which had been formed during the first year, and to impede its further extension in breadth. But as its fibres, consisting of vessels and cells, are not yet consolidated, and admit of still greater expansion as long as they are supplied with nourishment, their growth, which is restrained laterally, is now directed upwards, and there is no farther enlargement of their diameter. From the same cause, the pith cannot increase in size; and is ever found to diminish by the pressure of the surrounding wood. Thus, the vertical elongation of the entire stem continues during the whole of the second year, and the trunk becomes sufficiently strengthened by the addition of the second layer on its outside to bear this increase of its height.

While this process is going on in the wood, corresponding changes take place in the bark, and a new layer is added on its inner surface, or that which is contiguous to the wood. This layer constitutes the *liber*. All these new depositions must of course tend to stretch the outer portions of

the bark, which had been first formed, and which yield to this pressure, to a certain extent; but, becoming themselves consolidated by the effects of the same pressure, they acquire increasing rigidity; and, the same cause continuing to operate, they at length give way in various places, forming those deep cracks, which are observable in the bark of old trees, and which give so rugged an appearance to their surface. The culture has, long before this, peeled off, and has been succeeded by the consolidated layers of corticle envelop which form the *epidermis*. But the *epidermis*, which is continually splitting by the expansion of the part it encloses, itself soon decays, and is constantly succeeded by fresh layers, produced by the same process of consolidation in the subjacent corticle substance.

During the third and each succeeding year, the same process is repeated: new layers of cellular texture and of woody fibres are deposited around those of the preceding year's growth, and a new internal coating is given to the liber of the bark. The compressing power continues to be exerted on the internal layers of wood, directing their growth vertically, while they are capable of elongation, and can be supplied with nourishment. In time, however, by continual pressure, and accumulating depositions or solid matter, the vessels and the cells become less and less pervious to fluids; till, at length, all farther dilation is prevented. But the tree still continues to enlarge its trunk by the annual accessions of vigorous and expansible alburnum, and to take its station among its kindred inhabitants of the forest; till arriving at maturity, its majestic form towers above all the junior or less vigorous trees.

The development of each branch takes place in the same manner and by the same kind of process, as that of the trunk. The buds from which they originate, spring from the angle formed by the stalk which supports a leaf, and which is termed by botanists the *axilla* of that leaf. A law of symmetry is established by nature in the development of all the parts of plants. The leaves, in particular, are frequently observed to raise in a circle, or symmetrically around the parent stem; forming what is called a *whorl*, or, in botanical language, a *verticillated* arrangement. In other cases they are found to have their origins at equal intervals of a spiral line, which may be conceived to be drawn along the stem, or the branch from which they grow. When these intervals correspond to the semi-circumference of the stem, the leaves alternate with one another on the opposite sides.

The stems of most plants, even those that are perfectly erect, exhibit a tendency to a spiral growth.—This is observable in the fibres of the wood of the pine, however straight may be the direction of the whole trunk. This tendency is shown even in the epidermis of the cherry tree, for it may be stripped off with more facility in a spiral direction than any other. The primitive direction of the leaves of endogenous plants is a spiral one. It is particularly marked also in the stems of creepers and of parasitic plants, which are generally twisted throughout their whole length; a disposition evidently conducive to the purpose of their formation, namely, that of laying hold of the objects with which they come in contact, and of twining round them in search

both of nourishment and support. The twisted stems of the hop and of ivy show this structure in a remarkable degree, and the purpose for which this tendency was given cannot be mistaken.—*Rogel's Bridgewater Treatise.*

The subjoined article, whose heading would lead one to think that it related altogether to paintings, is a treatise on *Mulberries*, and without according in all the views of the writer, we give it to the public, reserving to ourself the right of speaking to it hereafter.

From the Northampton Courier.

ELEGANT CHINESE PAINTINGS.

A gentleman who has long been engaged in the Canton trade, often visited that city, and had opportunities to become acquainted with the manners and habits of Chinese, has lately visited Northampton to become acquainted with the state of the silk culture here, from whose scrutinising observations made in China, much valuable information has been obtained. The same gentleman loaned the subscriber a volume of splendid Chinese Paintings, which confirms our practice and culture of the Chinese mulberry as correct and proper. These paintings represent the men, women and children in their national costume, at work—commencing with gathering the mulberry seed, cleaning the same, and then preparing the ground,—sowing the seed, transplanting the young seedlings, gathering the foliage, feeding the worms, heading or cutting down the plants to 2 or 4 inches above the ground, as we do, and every process of their management, to making up of the silk into skeins, as we import it, and the further process of winding the silk upon spools.

There are 28 plates, illustrating the different processes.—The out door men laborers are dressed in plain loose frocks and trowsers, descending to the knees; some of the men with bare feet and legs; others with sandals and wooden shoes, adapted to their respective work of getting the plants in forwardness for feeding the worms. The women, boys and girls are employed in gathering leaves, feeding the worms, reeling silk, &c. Some of the ladies have elegant loose dresses, of various brilliant colors, ornamented with wide embroidery around the neck and sleeves. The upper dress is loose, of gay colors, the sleeves large, and extend a little above the elbow; and all the females are dressed in *pantalettes* of various colors, each in contact with the upper dress—the countenance fair, delicate and intelligent, eyes downcast; most of the females have small feet and gay sandals; the hair neatly dressed, ornamented, and all wear bracelets above the wrists. As the original plates can be seen by only a few, it may be desirable to hear some description of each print, for the gratification of those who take some interest in the culture of silk.

The plates make it evident, that although the Chinese sow the mulberry seed *broad cast* as we do small grain, yet they do not let it long grow in that state, nor do they cut it off (as we do grass) for feeding worms, but they transplant it into settings or hills, like our Indian corn, and

that it does not grow more than three or four feet in height, and is cut down every year to keep it in a shrubby state. Experience has convinced us that this procedure of taking off the tops to 2 to 4 or even 6 inches above the root, every autumn, and covering the stump with earth, is the best way to secure the Chinese mulberry against the severity of winter, and is also a sure method to multiply the number of trees and increase the quantity of foliage.

Some people have thought that the Chinese mulberry seed grew on trees of some height, like white mulberry (and on this account have been desirous of procuring large trees); so far as we have had experience this is not the fact with the Canton mulberry, although it may be true of Manilla and other varieties.

The first plate represents the seed growing very near the ground, like the Canton mulberry, from the seed of which I imported and sowed in 1834. In 1835, one of the seedling trees being laid down, the layer sprouts produced full size mulberries, too late, however, for ripening. The same root this year, 1836, grew branches which were again laid down, and the layer sprouts, when 4 or 5 inches high, again had mulberries formed, which ripened in season for sowing, from which seed I have two small trees carefully preserved, to ascertain its character. After the seed had been gathered, the same layer sprouts again, with others, had plump mulberries formed, but were destroyed by birds or fowls. Both crops were formed only a little above the root or foot of the layer tree, and some of them rested on the ground. I have neither seen or heard of any other of the Canton plants producing seed; but what has already occurred here, in the formation and product of seed, together with the representation and the gathering of the seed and the description of the leaf in the Chinese paintings, confirms the opinion, that the *Canton Mulberry*, so called here, is the same as used in China for feeding worms. Experiments have been made this year in feeding worms with the Black, White, Manilla, and the Canton Multicaulis, and the worms evidently preferred the Canton to either of the others. If any one is possessed of the evidence that the Manilla Multicaulis is ever used in China for feeding worms, he is requested to make it known. The first notice we have of it is, that it was cultivated at Manilla as a *tree of ornament*. After being introduced into France, it was found that the silk worm would feed upon the Manilla, as they had done upon the white or black mulberry, in Europe or America. Last year a Manilla multicaulis of 6 or 7 feet in height produced a few seed, which grew several feet from the ground. The seed was planted and two or three of them vegetated and were preserved through the winter, and set out in spring 1836, and grew about 2½ feet. The leaves were in shape and size very different from the original tree, and the leaves not more than one quarter as large as the leaves of the parent stock. It may be noted, that a number of old white mulberry trees which have annually borne seed twenty or thirty years, grew within about forty rods of the Mantilla multicaulis; the Multicaulis was exposed last winter on the southerly side of a building, and this year the dead tops have

been taken off, but has not produced any seed, or even borne a blossom. D. STEBBINS.

BEEET CULTURE AND BEEET ROOT SUGAR.

By the following article, our readers will find that the good people of Massachusetts are about entering into the culture of the sugar beet, and its manufacture into sugar, with a degree of spirit that would seem to promise success to the enterprise.

[From the Northampton Massachusetts Courier.]

BEEET ROOT SUGAR.

A large meeting of the farmers and others interested in the cultivation of Beets for sugar, was held in the Town Hall in this town on Friday afternoon. Mr Isnard, the French Vice Consul in Boston, was present by invitation from the Committee, and favored the meeting with many valuable facts and statements, such as had fallen under his own eye in France. Mr Isnard was one of the first engaged in the manufacture of sugar in that kingdom, under the immediate auspices of Napoleon, and hence his observations carry with them more than an ordinary share of weight and importance. He expressed his opinion to the meeting, that both the soil, climate, natural aptitude of the people, cheapness of the fuel, and various other natural advantages, pointed out this country as precisely the region for the successful growth of the Beet and the manufacture of sugar.

Many interesting facts we have gathered from statements made by him and from other intelligent sources. The Beet is the White or Silesian Beet, differing in size and the quantity of saccharine matter from the ordinary species. It should be sown during April, in drills, of about eight pounds to the acre. They are usually fit for use in September and October, and the process of making them into sugar, happily may be deferred until the season when the urgent farming operations are over. An ordinary yield, is about 40,000 pounds of beet per acre, which will make 2400 lbs. sugar, at an expense of 6 cents per lb. After the juice is extracted, the pumice is highly valuable for cattle, containing so much nutritious matter, and broken up as it is, ready for mastication. It is easily preserved for months in cakes, and is considered a most profitable species of fodder, cattle and sheep eating it with the greatest avidity.

After the beets are ripe, they are washed or scraped, and then the process of crushing or rasping may proceed. The rasp, by which the beet is cut up, is a wooden cylinder, set with steel saws half an inch apart, and when it is in operation, can crush into pulp, ninety pounds of root in one minute of time. A steam-engine of ten horse power can crush 40,000 pounds per day. The pulp must be submitted to the press very soon after, as fermentation follows the crushing immediately. The presses used in France are various, hydraulic, steam, &c., but when the beet is once reduced to pulp, we see no reason why an ordinary cider press, or one of similar construction, does not possess every possible advantage needed for obtaining the juice. The process for reducing the sirop to sugar need not be intricate.

or expensive. It is neither so in France, and the ease with which the sap of the maple tree is made into sugar here, shows that a similar, but more methodical plan, is all that is needed in New England, for its successful manufacture. The process of refining and clarifying the nicer qualities by steam or other means, is familiar in sugar-houses in this country and can easily be adapted to the growth of the article in our own land.

It is most apparent from all that can be learned touching the manufacture of sugar from beets, that our own country furnishes every possible advantage to be found in France. Labor is more expensive, it is true, but fuel, an important item in the refining process, is sensibly diminished, about a fair offset for labor. And the versatility and the inventive genius here would easily simplify the crushing, pressing and other processes for reducing the juice into molasses or sugar. The rich, and even beautiful sugar, which is annually made in our towns in the interior, with the most simple apparatus, and with very limited knowledge of the chemical agencies which are all the while in operation, confirm us in the belief, if the business is once began here, it ultimately will be one of the most extensive domestic products of New England. We trust a company, with the necessary capital, will be organized in Northampton, and the growth of the beet and the manufacture of the Sugar, another season commenced. An establishment once in operation, our farmers could grow the beet and supply the manufactory with the raw material, without interfering essentially with their other crop, and at the same time, be supplying themselves with an article of consumption for their cattle, the real utility and extent, as yet, they have but a very imperfect conception of. Agriculture in New England has no right any longer to remain stationary, a subject which we shall again early refer to.

A BEET SUGAR COMPANY is now in process of formation in this town. Some of our most intelligent and energetic farmers and active capitalists have got hold of it and we feel great confidence it will go ahead. Mr. Isnard's visit here has inspired great zeal in the enterprise, and a few gentlemen have already engaged his services both as an agent abroad and also to superintend the business in Northampton. He will proceed to France in a few days, and obtain all the information to be had there, in addition to that already in his possession, and return early in the spring. In the meanwhile, an act of incorporation will be obtained, with a capital of \$50,000 or a \$100,000, and the society organized, preparatory to Mr. Isnard's return, so that operations will not necessarily be obstructed by want of primary preparations.

It is thought by many, that the expense of sending an agent to France is needless, since the publication of Mr. Pedder's Report, who was sent out by the Philadelphia Beet Society. But those who are about to engage in the business here and wish to conduct it with success and enlightened zeal, think otherwise. Mr. Isnard was the first who began the manufacture of Sugar in France under Buonaparte, and he has already passed through the most hazardous, or experimental, part of the business, some years since.

By learning more of the details of the business and the improvements which have been introduced during the years he has been absent from France, it is fair to presume that he will be able to anticipate all obstacles, in the business, and carry it on with more confidence and success, than any other individual on the American Continent. Mr. Pedder has taken the first lessons and understands the first rudiments, whereas Mr. Isnard has studied the business for years and is perfectly conversant with all the practical operations, as well as the chemical nature of the changes the manufacturer is compelled to pass through. By a little careful reviewing of the business from personal observation and acquiring a knowledge of the improvements in France, his services will give the public confidence in the work, and be of incalculable benefit to the Company.

Now a word to farmers and others who wish to see this immensely important work go on of furnishing themselves and the whole country with Sugar. It is proposed to establish a Manufactory in Northampton. To erect all the necessary buildings and machinery for crushing the Beets and manufacturing them into Sugar. Now, from whence is to come the raw material? The company do not propose at present to purchase much land, but they urge upon the farmers of the Connecticut Valley, each and every one of them, to raise one or more acres of the Sugar Beet. Perhaps in no possible way could they devote their soil to so productive a crop, when it is remembered that the Beet exhausts the land much less than any species of grain,—and then the pumice, after the juice is extracted, furnishes an immense amount of nutritious and valuable food for cattle. It seems to us this business is of two-fold value to every community who engage in the enterprise. It furnishes a necessary article of domestic consumption, and produces from the same material, fodder in unlimited quantities.—Now the first article is a constant item of necessary expense, which nothing but money, or a good equivalent will buy; and secondly, it furnishes food in amount beyond any other crop, not cultivated exclusively as fodder. The soil does not deteriorate, but increases in value under this species of cultivation; and from the limited investigations which have been made, we feel sanguine of the happiest pecuniary result to the grower of the Sugar Beet.

The following gentlemen were appointed a Committee, and requested to co-operate in promoting the enterprise:

Edward Church,
Sam. Whitmarsh,
Wm. Clark, Jr.
Thomas Shepherd,
John Rogers,
Samuel Wells, Jr.
Sam'l L. Hinckley
Henry G. Bowers,
Roswell Hubbard,
Oliver Warner,
H. O. Apthorp,
Hiram Ferry,
John Frink,
J. H. Flint,
George Cook,

Azariah Clapp,
John Wright,
Elisha Graves,
Isaac C. Bates,
J. A. Strong,
Jonathan Strong,
H. K. Starkweather,
Munroe Clapp,
Elisha Strong,
Theodore Clapp,
Chester Clark,
Theodore Sheldon,
John Philips,
Benj. Barrett,
Nathan Storrs,

C. Delano,
Christopher Clarke,
Geo. Shepherd,
Daniel Stebbins,
Leander Moody,
Asahael Lyman,
Hervey Smith,
David Hunt,
Chauncey Clark,
Sylvester Judd,
John Clarke,

C. P. Huntington,
Solomon Warner,
Samuel Parsons,
Thomas Pomeroy,
Luther C. Clark,
Samuel Williams,
Cecil Dwight,
Joseph Warner,
W. W. Thompson,
Christopher Wright,
Henry Shepherd,

ASHES AS MANURE FOR GRASS LANDS.

There is scarcely any part of the country, where leached ashes cannot be obtained in greater or less quantity; and in the vicinity of asheries, abundance may generally be had with no other expense than drawing. If the following remarks by Count Chapel are applicable to soils of whatever materials they may be composed, a knowledge of this property of leached ashes, would in many instances be of very great value. At all events, the experiment is easily performed on a moderate scale.

"The ashes, produced by combustion of wood in our common domestic fires, give rise to some very remarkable results. Without being leached, these ashes are much too active; but after having been deprived, by the action of water, of nearly all their salts, and employed in this state, under the name of *buck ashes*, they still produce great effect.

"The action of the buck ashes is most powerful upon moist lands and meadows, in which they not only facilitate the growth of useful plants, but if employed constantly for several years, they will free the soil from weeds. By the use of them, land constantly drenched with water may be freed from rushes, and prepared for yielding clover and other plants of good kind."

It has been frequently supposed that ashes applied to wet heavy soils is injurious. This is probably owing to the application being too uneven, and in too large quantities, and to the want of mixing them intimately with the soil. Chapatal says, "Wood ashes possess the double property of amending a wet and clayey soil by dividing and drying it, and of promoting vegetation by the salts they contain."

It is well known, that the evenly spread and intimately intermixed layer of ashes which soil receive by burning the turf, produces extraordinary effects upon grass lands.—*Genesee Farmer*.

WHITE TURKIES.

I find but few persons are acquainted with this beautiful species of Turkey; and thought a short description of them would be useful.

They are about as large as the black Turkey common amongst us, and like them in every other respect, except the feathers being all of a clear white color; a beautiful object on our green lawns; the white down and small feathers are occasionally used for ornamental purposes.

If early application is made to the subscriber, near Baltimore, he can supply a few pairs of said Turkeys, and the large Westphalian Geese at five dollars a pair. If to be shipped to a distance, a suitable coop and feed will be furnished for fifty cents additional.

ROBERT SINCLAIR,
Clairmount Nursery.

Dec. 6th, 1836.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	7 50	8 00
CORN, yellow,	bushel.	—	—
White,	"	81	83
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 50	13 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	—
" " wagon price,	"	10 25	—
City Mills, super,	"	10 00	10 25
Do extra,	"	10 25	10 50
Susquehanna,	"	—	10 50
Rye,	"	7 00	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,	bushel.	7 00	7 25
Timothy (herds of the north)	"	3 25	3 75
Orchard,	"	—	2 75
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" " water rotted,	"	7	8
HOGS, on the hoof,	100lb.	8 25	8 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	45	46
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 25	—
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	—	125
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" " brown and red,	"	4 50	0 00
" " fine red,	"	7 00	7 90
" " wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" " yellow and red,	"	6 00	8 00
" " good yellow,	"	8 00	12 00
" " fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" " ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	2 25
Red, best,	"	2 05	2 10
inferior,	"	1 40	2 00
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" " in hhds.	"	39 1/2	—
" " wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,	"	2 00	—
Wool, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45 50	28 30
Three fourths Merino,	"	42 45	26 28
One half do.	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 21

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders, do.	"	—	15
Middlings, do.	"	—	15
Assorted, country,	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	1 94	2 00
CHOP RYE,	"	—	2 25
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,	"	—	6 75
Cod, salted,	cwt.	—	—
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	par
Branch at Baltimore,	Farmers Bank of Virginia 1
Other Branches,	Bank of Virginia,
Branch at Fredericksburg do	Branch at Fredericksburg do
Petersburg,	do
Norfolk,	do
Winchester,	do
Lynchburg,	do
Danville,	do
Bank of the Valley,	do
Branch at Romney, 1	Do. Charlestown, do
Do. Leesburg,	do
Wheeling Banks, 2a2 1/2	Ohio Banks, generally 3a3 1/2
New Jersey Banks gen. 1 1/2a2	New York City, 1a
New York State, 2 1/2a3	Massachusetts, 2a2 1/2
Connecticut, 2a2 1/2	New Hampshire, 2a2 1/2
Maine,	2a2 1/2
Rhode Island, 2a2 1/2	North Carolina, 3 1/2a4
South Carolina, 3 1/2a4	Georgia, 3 1/2a4
New Orleans, 6	Canadian do. 6a
PENNSYLVANIA.	
Philadelphia,	1a
Chambersburg,	1
Gettysburg,	do
Pittsburg,	2a2 1/2
York,	1a
Other Pennsylvania Bks. 1 1/2a2	Delaware [under \$5] 3a4
Do. [over 5],	2a3
Michigan Banks,	6a
Canadian do. 6a	

NEWLY IMPORTED SPANISH JACKS

OF THE FIRST QUALITY.

I am about to receive direct from Spain six JACKS, selected by a competent judge acting under the direction of the American Consul at Gibraltar, whose instructions to said Agent were to "purchase only proved JACKS, the best that can be procured without regard to price." The Spanish certificates that accompany them describe them minutely, representing them all as either white or grey, from four to eight years old, and from 52 to 56 inches high. They are also certified to be "able to cover mares, and of the most approved breed for that purpose in the kingdom." If on coming to hand they prove, as is fully expected, true to their respective descriptions, they will be sold for from \$1200 to \$1500 each. They will be ready for delivery here about the middle of November.

I have also on sale two imported MALTESE JACKS, each 1 1/2 hands high, 10 and 11 years old, and first rate breeders. Price \$1000 each. Also several smaller JACKS at lower prices.

The subscriber is also agent for the sale of "GREEN'S PATENT STRAW CUTTER," unquestionably the best implement of the kind yet invented. Price at the store \$32, and it costs about \$1 to pack and ship it. Address I. I. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth st Philadelphia. Philadelphia, Oct. 13th, 1836. oc 25

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

Liberal discounts made to the trade.

DUTCH BULBOUS FLOWER ROOTS.



The increased desire and spirit exhibited the last season to cultivate Flowers and other ornamental plants, has induced us to obtain from Holland an assortment of Tulips, Hyacinths, and other Bulbous Flower Roots.

Those now on hand are just received, and are particularly large,

strong and of the finest kinds. They consist of the following, viz.

- 150 sorts double and single Hyacinths
- 75 do Early Bizarres, Bybloem, and double Tulips
- 20 do single and double Narcissus
- 5 do Crocus
- 14 do superb Amaryllis at 25c. a \$10 each
- 8 do Crown Imperials

Also, Gladiolus or Sword Lily, Iris, Arum Dracunculus or Dragon Plant, Anemone, now Drops, &c. &c.—And early next spring we will offer for sale a superb collection of Double Dahlias, consisting of 200 named sorts, inferior to none in this country. Also, Jacobian Lily Roots, double Tuberoses, Tiger Flour and other delicate Bulbs.

ROBERT SINCLAIR, jr. & CO.

Light near Pratt street whf.

Catalogues of Bulbs and directions for planting will be furnished on demand. no 29

POINTERS FOR SALE.

A thorough bred Pointer Stut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendulant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper. no 15 4t

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent, 87 Smith's wharf.

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THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, DEC. 13, 1836.

FAILURE IN THE POTATO CROPS OF GREAT BRITAIN.

A very interesting discussion is now going on in the Farmer's Magazine, published in London, with respect to the cause of the failure of the Potato Crop, and as every thing which can tend to throw light upon a branch of husbandry of so much magnitude must be of intense interest to every one engaged in the culture of the earth, we shall give a brief view of the several articles on the subject.

It appears that the failure arises from the inability of the sets to germinate, and the difficulty with the several writers, is, to trace this defect to its proper cause. One writer states that when we take into view that the method of keeping the seed, of making the manure and mode of planting, have all been conducted and managed nearly in the same manner for the last fifty years, and no failures have occurred till within the last 3 or 4 years, and unless it can be shown that the drought has been more severe in the early part of the last three or four seasons, than it has been any other year during the course of the last fifty, the drought alone must go for nothing.—And, in order to show the inexplicableness of this reason as the primary cause, he illustrates his position by the following facts: The last year he bought a few bolls of seed potatoes from a Strat-haven dealer; they were planted on a piece of hard clay land; the whole came up and produced as good a crop as could be expected. The same dealer informed him that he had supplied three other farmers with a good many bolls from the same pit, one of these had a good crop, the other two proved almost total failures, and one of the latter planted on land admirably adapted to the growing of potatoes. He maintains that it is not the fault of the manure, as in some ca-

ses where manure was taken from the same heap, and, indeed, out of the same cart, a part of the planting has succeeded well, and the other part has failed entirely. He asserts it as a fact with-in his own knowledge, that the failures have most generally occurred upon heavy unpulverized clay soils;—though in numerous instances, the same disasters have occurred upon the very finest soils, and even upon the haughs of Clyde, a locality famous for the production of good crops of this excellent vegetable.

Another writer states that in all cases where the drills, after being planted, were exposed to drought the failure has been more general; that where they were well protected from the sun, or where the ground was damp, the failure has been but trifling: he further states that the exposure of the ground to the sun, so as to dry it severely, appears to have had great influence in destroying the sets, and then adduces the following facts to show the truth of his remarks: One neighbor near Paisley, in planting a field of potatoes the last season, had to drive his dung from a distance, so that some part of the dung in the same drills was laid on in the morning, and other parts in the afternoon, the whole having been covered up towards evening: the results are thus stated. Those parts where the dung was laid on in the morning and thoroughly drilled, the potatoes proved nearly a total failure: where the dung was laid on at mid-day, the failure was more partial: and where it was laid on in the afternoon and the drills closed up immediately after, the crop is excellent and no failure whatever.

This writer says that an intelligent farmer from the parish of Inchinnan, who suffered severely last year by the failure of his potato sets, assured him that he found the same results from a similar course of procedure: that having made these observations last year he has been careful this season, to avoid as much as possible the exposure of his potato sets or dung to the sun's rays, and from the adoption of this course combined with a change of seed, he has an excellent braird of potatoes, without the failure of a single plant, while his neighbors in all directions are in a very different situation. This same

gentleman had made repeated experiments of the setting of the whole potatoes, of a small size in places where there was risk to the seed, and his experiments had always been successful, both in preserving the seed from rot, and raising an excellent crop.

Another writer, in giving an account of the total failure of the potato crop in Ayreshire, Scotland, states, that for entire districts of country the carefully prepared arable land looked no better than red land, that in many instances farmers had planted a second time, while more had been driven to substitute turnips for their potato crop. He states that in the neighborhood of, and for miles around Ayre, the lazy bed system succeeded best: and that the potato crop had failed in Ireland also.

Appended to this latter communication we find the following statement of facts:—

1st. In a farmer's field to the eastward of Ayre, a number of people set out their potatoes in the usual way. Some used horse or cow dung in a damp condition: others used ashes from coals in a dryish state: the potatoes planted on the damp dung almost all rotted, whilst those planted on the dry ashes, almost uniformly sent up strong stems, and thrived admirably.

2d. Another farmer planted his potatoes with two kinds of horse dung, the one kind he obtained from a dog kennel, and consisted of the contents of the intestines of the dead horses which had been employed in feeding the hounds for some months previous, and having been exposed to the sun and air had become as dry as powder when applied to the potatoes: the other sort which he used on the remaining portion of the same field, was taken from the dung-heap, and was fresh and sappy;—the seed planted on the dry manure vegetated regularly and produced a good crop—but that set on the moist dung proved a total failure.

The conclusions arrived at by these farmers, are—that the potato plant in Britain has become so weak as to be unable to resist the strong stimulations of manure when in a state of active fermentation; and, secondly, that a dry light kind of dung ought to be used till the root regains its pristine vigor.

The facts we have detailed; the results of the experiments growing out of them, and the inferences to be drawn from the premises generally, though confined in their disastrous effects to our transatlantic brethren, are highly important, and should meet, as they deserve, the serious consideration of every potato grower in America. The same laws which regulate the vegetable world in Europe prevails here, and the same cause which operates there to cut off this source of the farmer's revenue, may reach us, if it has not already done so. If from long culture in the same soil—if from a similarity in the quality and mode of applying manure—if from a sameness in the manner of cultivation—we say, if from a combination of all these causes, the *seed itself* has become enfeebled, and put on a state of degeneracy, other and more appropriate treatments should be resorted to. It is a well established fact, that to continue the same vegetable upon the same spot for years of continuous culture, is to ensure a decreased crop; and as the phrase of the farmer has it—the ground becomes sickened of the particular thing which may have been too long cultivated therein, and will only produce it in stunted proportions. The enlightened advocates of rotation of crops, affirm with great plausibility, and as we believe, truth, that in every soil, there is something found furnishing nutritive matter which is peculiarly grateful to some particular plant, and conducive to its healthful and vigorous growth: that while this aliment abounds, the plant will flourish; but when the supply becomes abstracted, the same vegetable which once so delighted, and grew so luxuriantly therein, will take on a sickly aspect, supporting life with difficulty; and that although it will no longer grow therein, another vegetable which may succeed it, will find something congenial to its appetites, and disport its growth thereon most lustily.

Taking a view of the whole ground as developed by the facts before us, and applying them to the test of reason, we think that the feebleness of the potato sets, and the uncertainty of their germinating in Britain, arises mainly from the same ground being too long employed in their culture—the want of a proper system of rotation, and too little attention being paid to the change of seed.

WHEAT FLY—A PROPOSED PREMIUM.

We make the following extract from a communication which appeared in the *Baltimore Chronicle*, of the 8th instant, and commend the

proposition it contains to the consideration of Agriculturists generally. The writer, it will be seen, estimates that the last wheat crop, from the ravages of the Fly, and other causes, is less by 12 millions of bushels than usual, and proposes that the legislature should be memorialized to offer a premium of \$4,000 to any person who shall discover a preventive remedy against the ravages of the Hessian Fly,—and although we dissent from the writer's assertion, that the egg of the insect is deposited on the *seed wheat*, we think the amount of money named, could not be more judiciously appropriated; for if the pecuniary inducement should lead to a discovery, the benefits to the country at large, will prove of incalculable and lasting benefit.

"From the best data I have been able to get at, I believe the wheat crop in these States alone, to be at least 12 millions of bushels less than usual. This loss falls principally upon consumers in the first instance, many of whom have been obliged to anticipate their crop, and unfortunately regulated their expenditures in expectation of their usual crop; disappointed in their usual resources, they are obliged to disappoint the country merchant; and others who have been more provident than to go in debt, are nevertheless forced to dispense with many comforts which they have been accustomed to enjoy. Thus the country retailers being disappointed in receiving his dues, and in making his usual sales, is forced to disappoint the merchants in the cities, from whom he received his supplies, whilst they, poor souls, are not only forced to meet their own engagements for an unusually large stock of goods, (for I believe it is admitted that the merchants expected an increased business) but are obliged to make good the unexpected delinquencies of their customers. Now, sir, I have not written this without an object, being clearly of opinion that the country has sustained an actual loss of twelve millions of dollars by one of the vilest foreign agents that ever invaded our country, viz: the Hessian Fly. I propose that the merchants and mechanics shall unite with the farmers in an early application to our legislature, praying that honorable body to offer a premium of at least \$4,000 to any individual who may discover an effectual preventive to the devastations of this little insect. I have no doubt if Maryland consents, Virginia Pennsylvania and New York will follow her example. We should then have a premium of sixteen thousand dollars offered, a sufficient sum to attract the attention of the ablest naturalists of our country; and I have no doubt but the experiment would prove successful. At all events the State would hazard nothing, for if an effectual preventive be not discovered, the State would not be called upon to pay the premium, and if an effectual preventive be discovered, her citizens would be benefitted greatly beyond the amount paid. From my observations, I am convinced that the impression that this insect is migratory in its habits, is erroneous. On the contrary, I am firmly convinced that the egg from which the insect is hatched, is

sown with the grain, and that any preparation which could destroy the egg on the seed wheat, without injuring the germ, would prove effectual.
A PRACTICAL FARMER.

A mode of producing two crops of Grapes, in one house, in one year.

Loudon's October number number of his *Gardener's Magazine*, contains an account by a correspondent, of his method of cultivating the grape, by which he obtains two crops in one year, and had not for the space of five years lost a single crop. He has but a limited quantity of glass, and that of the worst sort, being that he had used over his pine pits. He has a house 30 feet long, 16 feet rafters, 30 inches front glass, with eleven vines planted outside; five of which are excited for the spring crop, and six for the autumn crop. The five vines were turned out of the house in the middle of May, 1835. When the six vines for the late crop were introduced, those turning out were laid upon a flat trellis in front of the house, the wood being ripe at the end of July, at which time they were pruned upon the spur system. Each vine was divided at the entrance into the house, and formed into two principals, which are the full length of each of the rafters. In a week or so after pruning, the vines were covered, to keep them both cool and dark, until Oct. 26, when they were introduced into the house, and the six others placed in their situation. These six had been introduced in the middle of May, 1835, and had matured their crops and ripened their wood. The other five had sprung their buds above an inch when put into the house, and were pruned with two stems, one vine being divided at its entrance into the house, and made into two principals, so that the rafters were completely furnished. The crop was 180 lbs., independently of what was cut for the table of Mr. Loudon's correspondent.

The five vines taken in on October 26, were immediately wrapt with coarse sacking and well moistened with cold spring water. The house was kept low, until every bud had sprung or swelled, when the sacking was released, and in a few days taken off. The buds all pushed vigorously, and were in full bloom by Christmas morning. The usual hot house rules were followed afterwards; only keeping the house cool in the evenings. Instead of a high moist heat, a cool dry atmosphere is necessary. The fuel used was small coal made into the form of bricks with clay.

The farmers and planters throughout the country, should act in concert and secure a portion of the surplus revenue to advance the cause of husbandry.

[From the London Farmer's Magazine for August, 1836.]

ON AGRICULTURAL CHEMISTRY.

BY THOMAS SHAPTER, M. D.

On the importance to the scientific farmer of an intimate knowledge of the composition of the soils he has to manage and to improve, and of the manures which he adds to them, there can be but one opinion; for until such knowledge be acquired, he must remain in ignorance of those physical changes and new combinations which are effected by a judicious admixture of them, the results of whose operations he knows to be advantageous only by long and often dearly bought experience.

In order to prosecute such an inquiry as the consideration of these subjects must entail, it may appear, perhaps, to the generality of readers, that the more natural course to be performed would be, first, to investigate the composition of the various soils, and afterwards, that of the manures; but I have here preferred commencing with the latter, as I think it will much simplify the subject by preventing repetition, and enabling me, when speaking of the composition of the soils, to allude to the manures which are applicable to them.

The term *manure*, taken in its most extended meaning, includes every matter whereby a soil may be improved, and rendered capable of yielding an increase of nourishment to the plants committed to it, and by which their growth is promoted: wherefore all those substances which by being placed in juxta position, or by being filtrated through their tissues, merely excite the organs to perform more actively the functions of nutrition, come under this denomination, as well as those matters which may wholly in themselves, or in part by their elements, pass into the plant, and by becoming a component part of its composition, add essentially to its growth and increase. According to this extended view, various products of the three kingdoms in nature would come within the denomination.

But, in a definition so comprehensive, many substances are included, which I think, can scarcely come within the ordinary acceptation of the word; therefore, I shall use the term *manure* under certain limitations.

Chaptal, in his treatise on agriculture, divides manures into *nutritive*, which are those which furnish juices and nourishment to the plant, and *stimulative*, which are those substances, as above stated, that only excite the organs to perform their natural functions in excess: we may say that this latter class stands in the same relation to the vegetable economy, as condiments and seasonings do to the animal.

For the sake of explicitness, I shall prefer turning this latter class of *chaptals* "*amenders of the soil*," and restricting the term "*manure*," to the former only; so that, according to their different definitions as above stated, manure will include those matters principally derived from the animal and vegetable kingdoms, which are capable of entering into the composition, and adding to the substance of the vegetable; while the amenders of the soil will comprehend on the other hand, those products afforded chiefly by the mineral kingdom, not capable of being assimilated to the substance of the vegetable as manures, yet of use in the

furtherance of vegetation,—thus including necessarily the consideration of a number of substances of very vast importance to the agriculturist.

Decandolle says, that every amelioration of the soil, such as draining, is an amender, in the strict sense of the term; but here we limit it to such ameliorations which are practiced on the soil only by the addition and mixture of matters, with the design of modifying its physical and mineralogical character; independent of any prominently nutritive effect. We must, nevertheless, bear in mind, that although this division of the subject will be extremely useful for the purposes of investigation, and in a theoretical point of view, is strictly correct, yet for all practical purposes, the relation in which *manures* and *amenders* stand with regard to each other, must not be forgotten; for the greater part of manures have also a claim to the title of amenders, from containing, for example, certain earths, from different circumstances, and from influencing the density, temperature, moisture, &c., of the soil to which they may be added!

Manures are here defined as those substances capable of affording a salutary nourishment to vegetables in general, by presenting to them the necessary elements in a state of extreme division, either mechanical or chemical, which elements, through the agency of the vital processes of assimilation with which vegetables are endued, become a component part of the living plant.

Vegetables are composed principally of carbon combined with oxygen and hydrogen; we therefore, see the reason why dead vegetable matter, containing these principles may become food to the living plant; and when we moreover recollect that animal matter often contains carbon, and always nitrogen in addition to the oxygen and hydrogen, we see why animal as well as vegetable matters, are entitled to be called manures, since both as shown by experience are consumed in vegetation. It has been proved, as Sir H. Davy asserts, that they can only nourish the plant by affording solid matters capable of being dissolved by water, or gaseous substances capable of being absorbed by the fluids in the leaves of vegetables; therefore the great object to be obtained in the application of manure, should be to make it afford as much soluble matter as possible to the roots of the plant, and that in a slow and gradual manner, in order that it may be entirely consumed in forming the sap and organized parts of the plants.

Several experiments which I have made, with the aid of poisons and coloring matter, prove that plants have the power of absorbing substances, when in a state of solution, unchanged in their chemical relations. The following experiment, from the lectures on agricultural chemistry, and which I have repeated with a similar result, is sufficiently conclusive:—

"The roots of a *primrose* were introduced into a weak solution of oxide of iron in vinegar, and suffered to remain till the leaves became yellow—the roots were then carefully washed in distilled water, bruised and boiled in a small quantity of the same fluid: the decoction of them passed through a filter, was examined by the test of infusion of nutgalls, the decoction gained a strong tint of purple, which proves that a solution of

iron had been taken up by the vessels or pores in the roots.

But it is found that the plant, in acquiring the elements of which it is composed, from these manures, does so in many instances, through certain complex operations, and not always by the substance being merely placed in opposition; thus, most probably the carbon, of which plants are chiefly composed, is presented in the form of carbonic acid, and is then decomposed again by the vital power of the vegetable, in order to its proper assimilation. This view is suggested from the minuteness of the pores of plants, which renders it very improbable that the smallest particles of solids can pass into them from the soil. *Davy*, to prove this, made the following experiment: some impalpable powdered charcoal, procured by washing gunpowder, was placed in a phial containing pure water, in which a plant of peppermint was growing: the roots of the plant were pretty generally in contact with the charcoal. The experiment was made in the beginning of May, 1805. The growth of the plant was very vigorous during a fortnight, when it was taken out of the phial; the roots were cut through in different parts, but no carbonaceous matter could be discovered in them, nor were the smallest fibrils blackened by the charcoal, though this must have been the case had the charcoal been absorbed in a solid form. From this he infers, as no substance is more necessary to plants than carbonaceous matter, and as this cannot be introduced into the organs of plants except in a state of solution, or in the form of gas, that there is every reason to suppose that either substance less essential will be subject to the same law, when in a solid form.

We, therefore, see the reason why these aliments of the plant are rarely to be employed in their natural condition, but are left partially to ferment and putrify before they are used; especially when it is taken into consideration, that by permitting a partial decomposition to take place, the elements of which they are composed, not only become more soluble, and therefore, more available, when employed for agricultural purposes, but during the furtherance of these operations an additional advantage is derived from the production of many gases, such as the carbonic acid, carburetted hydrogen, azote, and ammonia, which in themselves may become aliments to the plants, or stimulants to its organs of assimilation, though it must be allowed that the effects they are capable of producing must necessarily be small, for such parts as assume the gaseous form, in consequence of their facility of passing into the surrounding air, easily become mixed with the atmosphere and diffused through it.

I stated above what the elements were, which manures must have the power of yielding, and I also stated that animal and vegetable matters contained them; but it is unnecessary that a plant should submit to those changes, which it can only undergo after death, before it is in that condition which is essential to its having the power of yielding the required products; nor is it less necessary, to the same effect, that animal matters should likewise be deficient in all vitality: therefore we see it is proper that a partial decomposition should ensue, in order to afford as much soluble matter as possible to the roots of the plants re-

quired to be manured; yet, this process must not be permitted to too great an extent, as in such case there would remain from the manure little else but fixed salts, combined with such earths and juices as would be rejected by the plants, or, at any rate, its salutary effects would be much curtailed, yielding, perhaps, nourishment but to a single crop.

The means employed for retarding the process of decomposition, are very various, but there is none more practically useful to the farmer, than that of mixing the manure with the soil; for by so doing, it is divided into small masses, which are not so quickly acted on as larger; thus by prolonging the phenomena that take place during decomposition, food is *gradually* afforded to the plant.

On the other hand, it is necessary that some manures should be exhausted by fermentation of somewhat of their power, when in their first condition they are found in their effects to be strong and rank: of this description is the dung of certain animals, which being the excrementitious matter of the food which is necessary to their nourishment, is by the process it has already undergone, already more or less prepared for immediate use, depending on the force of the digestive organs, which varies somewhat in each species of animal, as well from the differences in their food, as from the quality of the digestive juices furnished by their stomachs.

It is from these circumstances that the questions arise as to the relative value of manures, depending upon their compositions, and the resisting power with which they are endowed.

Many theories have been offered as to the mode in which manures operate; of these some are sufficiently fanciful, while others carry with them considerable weight: the most conspicuous, both as regards their intrinsic merit, and from the high names of their authors, are those of Rozier, Senebier, and our countryman, Sir Humphry Davy.

Rozier, under the impression that nothing can be properly presented to the plants unless dissolved in water, and that the effects of manure is to increase the quantity of soluble matter in the soil to which it is added, argues that their action is to be compared to soaps; but then he extends the meaning of this word, far beyond its ordinary acceptance, for he not only includes the different combinations of oil with alkalies, but all such modifications of matter as result from simple solutions.

Senebier holds the opinion, that they are rendered useful only through the process of fermentation which they undergo, under the impression that it is through its means alone that carbonic acid is developed; but he has not shown, (which it was essential to have done,) that all carbon, which plants derive for their sustenance and growth from the media with which they are surrounded, is presented to them in that form, or, admitting such to be the case, that that fermentation is the only means to this end.

Sir Humphry Davy at one time appears to have held much of the same opinion, but subsequently attributed the mode of operation to a simple solution of those component parts necessary to vegetation. He says, that he introduced plants into solutions of jelly, sugar, mucilage, &c., but

they died; while, after these various solutions had undergone fermentation, similar plants flourished in them, at which time he concluded that fermentation was necessary; but he says that he has since found that the deleterious effect was produced from the vegetable organs being clogged with solid matter, and from the prevention of a free transpiration in their leaves, in consequence of the solutions with which he experimented being too concentrated. The experiments, from which he deduces that his former opinion was erroneous, were made with similar solutions in the proportion 1-200th part of animal and vegetable matter. "Plants of mint," says he, "grew luxuriantly in all these solutions, but least so in that of the astringent matter. I watered some spots of grass in a garden with the different solutions separately, and a spot with common water, the grass watered with solutions of jelly, sugar, and mucilage grew most vigorously! and that watered with the solution of the tanning principle, grew better than that watered with common water." And then he goes on to show, from experiment, that there is every reason to suppose that soluble matters pass unaltered into the roots of plants.

Although each of these theories is sufficiently plausible, yet there is that known in opposition to each which permits one to say decidedly that neither is to be considered conclusive. Without entering into any general discussion as to their relative merits, we may state, that by taking them all into consideration, by supposing, that now the phenomena are in accordance to the laws of one, and then in accordance of another, and by calling to our assistance the knowledge we possess of vegetable nutrition, we may, though not capable of defining a theory, be enabled to comprehend the various modes by which manures yield nourishment to the vegetable world.

We shall find in the progress of this enquiry, that the different manures contain the elements necessary to vegetation in very different proportions, with which as well as with the relative strength of the *chemical* affinities they exert, both in respect of their own composition, and the conditions to which they are subjected, it will be necessary we should make ourselves acquainted. The consideration of these subjects may be resolved into the three following divisions:—

1. What is the gross amount of carbon contained in a given quantity of manure; in what state of combination does it exist, and in what mode is it presented to the plants?
2. What other matters are contained, which from their nature may essentially be considered as manures, as nitrogen, oxygen, &c.?
3. What other matters are contained, which cannot be esteemed as manures, but as amenders or stimulants only.

The first of these queries involves by far the most important subject of enquiry to the farmer, and, fortunately, is not very difficult of investigation. The second and the third, though not so accessible to our researches, are by no means to be neglected in an enquiry of this nature; indeed, without a knowledge of them, the subject would be but imperfectly considered.

The more natural and convenient division of manures of organic origin, will be found to be into that of the vegetable, animal, and mixed.

Vegetable Manure. Under this title a vast number of substances are included, the agricultural properties of some of which will shortly be discussed. The whole of this class, for the most part, owe their importance to containing extractive matters, albumen, mucilage, gelatine, sugar, oils, acids, salts, carbonic acids in aqueous solution, &c., which, however in their pure form, are seldom available to the farmer, as an application of manures, though they may be of great and prompt advantage to vegetation; nevertheless, they are all employed by him, combined, generally speaking with a great excess of fibrous insoluble matter, which must undergo certain chemical changes before it can become the food of plants; for it is during the progress of the processes here alluded to, that the decomposition ensues which carries the solubility of those particles, which in their former condition were insoluble. "Of those substances," says Chaptal, "which constituted animal, vegetable existence, the greatest number are soluble in water, and it is evident that in this state we may employ them as manures without previous fermentation; but when they contain much matter insoluble in water, it is necessary they should be decomposed by fermentation, since by its means their nature is changed, and new compounds are formed, which are soluble, and capable of being taken up by the plant."

The progress of the changes which are thus effected, have been particularly detailed in the lectures on agricultural chemistry; together with that great author's opinion, on the propriety of taking "a scientific view of the nature of these changes,—of the causes which occasion them, and which accelerate or retard them,—and of the products they afford." The products of fermentation are very various, depending on the nature of the substances of which the vegetable mass is composed, influenced greatly by many accidental causes. The diversity and almost uncertainty of the products, have rendered observations on its progress very difficult; we may, however, say, that the result of the spontaneous re-action of the matters composing the mass on themselves in consequence of humidity is, that carbonic acid gas, acetic acid, carburetted hydrogen, &c., are involved, leaving eventually a brownish, blackish mass, which is termed "terreau," by the French, and earthy matter or vegetable mould, by ourselves. To this effect, Sir H. Davy, from experiment, proves, that "if any fresh vegetable matter, which contains sugar, mucilage, starch, or other of the vegetable compounds soluble in water, be moistened and exposed to the air at a temperature from 55° to 80°, oxygen will soon be absorbed, and carbonic acid formed; heat will be produced, and elastic fluids, principally carbonic acid, gaseous oxide of carbon, and hydro-carbonate, will be evolved; a dark-colored liquid, of a slightly sour or bitter taste, will likewise be found, and if the process be suffered to continue for a time sufficiently long, nothing solid will remain except earth and saline matter, colored black by charcoal." The dark-colored fluid always contains acetic acid. So that the general division of the products of this putrefactive fermentation may be stated as into liquid, gaseous, and solid.

The liquid are chiefly water and acetic acid, and with, probably, a little oil. The gaseous are the carburetted hydrogen, carbonic acid, and,

when nitrogen is present, ammonia. The solid are those matters which are contained in that residuum termed vegetable mould.

The prominate principles, which depend on the arrangement of the elements, are not equally liable to undergo this species of dissolution: as a general law it may be stated, that those which contain oxygen and hydrogen in the proportions to form water, are the most susceptible of the putrefactive changes; whilst acids which contain an excess of oxygen, and those substances in which charcoal and hydrogen prevail, do not manifest a similar tendency, unless, through the mediation of heat and moisture, their affinities be estranged.

Thus, "in proportion as there is more gluten, albumen, or matters soluble in water, in the vegetable substances exposed to fermentation, so in proportion, all other substances being equal, will the process be more rapid. Pure, woody fibre alone undergoes a change very slowly; but its texture is broke down, and it is easily resolved into new elements when mixed with substances more liable to change, in consequence of containing a larger proportion of oxygen and hydrogen. Volatile and fixed oils, resins, and wax, are more susceptible of change than woody fibre, when exposed to air and water, but much more less liable than the other vegetable compounds."*

We see, therefore, that it is necessary, in order to appreciate the probable action of the many manures generally in use, to analyze them carefully, so that we may be enabled to consider what the ingredients are of which they are composed; but this must not be the end of our investigations, as other considerations of importance are not to be over-looked. In proof, we adduce the following:—Carbon, as repeatedly observed, holds the first rank as a manure: the matter which is the most rich in carbon is the charcoal of wood, which, were we to take the relative quantity only, into consideration, we should be induced to believe to be the best of manures; yet we really find that it can scarcely be ranked amongst them, for the carbon, when it is in this condition, is but slightly induced to form carbonic acid, and is not susceptible of forming a solution capable of being absorbed by the roots.

The other circumstances, to which attention is principally to be paid, are,—the elevation of temperature, which may be caused either by the rapidity or degree of fermentation; the quantity of water which the plants contain; the presence of such nutritive matters as are unequally soluble, thus permitting a prolonged action; and the presence of such matters as are not of a nutrient quality, but merely excitants.

We shall now proceed to the consideration of the more important manures in ordinary use, and to which the above observations are applicable.

Green Crops.—The most usually employed, are the green succulent plants, as trefoil, lucerne, beans, &c. These are principally composed of woody fibre, combined with mucilaginous and saccharine matter, which from containing the elements they are composed of, in such proportions as are easily convertible into water, especially as their affinities are so weak as easily to undergo the putrefactive fermentation, aided, as this pro-

cess is, by the large proportion of fluids they contain, the woody fibre, which in its simple state, from containing a much larger proportion of carbon than oxygen and hydrogen, is not very susceptible of putrefaction, by being submitted with the other portions of the plant to this action, has its carbon converted into carbonic acid, reducing thus the oxygen and hydrogen to proportions convertible into water;—thus the whole becomes soluble.

As these processes take place very easily, it is necessary to use them immediately they are cut down, or the usual and best plan is, to plough them into the ground, at once, on which they were growing; but care must be taken that they are not sunk too deep in the soil, as in such case, from being deprived of heat and air, their benefit will be but very slowly developed; at the same time they must be ploughed in sufficiently to enable the woody fibre to be dissolved, and to prevent the fermentation going on too rapidly, that the nutrient elements may not be dissipated through the air.

The best time for ploughing in these green crops is during the summer, before the plants have scattered their seed, and when their leaves are full of fluid, and there is heat of sun sufficient to hasten the destruction of their natural condition.

It is the opinion of a practical writer, that where crops of green plants can be turned down, when the season is sufficiently hot to ensure their speedy running into the putrid state, there cannot be any doubt but that it is a better and more advantageous practice, especially where manures of other kinds are scarce, than that of procuring it by the consumption of such crops by the feeding or soiling of cattle.

Of a similar nature both as to chemical composition and practical use, is the *river weed*; it contains a large quantity of mucilaginous and saccharine matters, with perhaps, less of woody fibre than the succulent land plants.

From the very large proportion of water which it contains, it is necessary to heap it for a week or so, (ten days at the furthest,) to permit the superabundant quantity to drain from it: it then may either be ploughed in, or mixed with a little lime and earth to form a compost. From this large proportion of fluid, and from the easy solution of its component parts, it is necessary to use it as early as possible, for a very short time is necessary, under favorable circumstances, to hasten the completion of the process of fermentation,—in which case its application as a manure would be useless.

In the neighborhood of the sea-coasts, there is not a more available manure than the sea-weed; the fuci, algæ, and conservæ, are indiscriminately used: though unequal in their composition, they each abound with mucilage and salts, which for the most part are the muriate and carbonate of soda, and an analysis has shewn, that they also possess much carbonic acid.

As sea weed does not contain fibrous matter, there is no necessity for permitting it to ferment before ploughed in, from the same cause, also together with the quantity of water formed by its decomposition, the effect produced on the land is very transient. So rapid, indeed, is this process, that it is found the cast up weed is not nearly so

valuable as that cut from the rocks. Those soils which are manured by it must be annually supplied with large quantities.

In the islands of Guernsey and Jersey it is used in the Spring in its natural state, immediately after cutting it from the rocks, when it is found of great service in pasture lands; later in the year, however, they dry the weed, and, from scarcity of fuel burn it, and use the ashes only as a dressing; but the loss, in an agricultural point of view, is very great, in fact, it is little more than strewing the ground with sea salt.

The value of this manure in improving old pastures is very great, and where it has been tried, it is remarkable with what avidity sheep and cattle eat the grass, and how well they thrive and fatten on it.

Scarcely an agricultural paper reaches us from the east, or from the west, but has accounts of the *proceedings of agricultural societies*, of *agricultural fairs*, or *exhibitions* of some kind or other. These are to us truly refreshing evidences that, though in some states the farming communities are not alive to their true farming interests, yet in others they are actuated by a generous zeal to promote the noble cause of husbandry. And in order that our readers generally may see the liberal spirit that is abroad in the state of Massachusetts, we have inserted in another page the *premium list of the "Massachusetts Society for promoting Agriculture"* for the year 1836. By the wide range of premiums, as well as the magnitude of many of them, the reader will at once perceive with what anxious care—with what profound solicitude—and well directed energies—this most excellent institution are watching and fostering the farming interest. Scarcely an article worthy of the attention of the cultivator is left without a premium of greater or less amount; and those which are intrinsically important, have allotted to them premiums of appropriate consideration, so that pecuniary inducement may come in aid of that chivalric spirit of rivalry, which animates honest hearts and intelligent heads, and prompts them onward in the race of honorable competition.

[From the New England Farmer.]

MASSACHUSETTS SOCIETY FOR PROMOTING AGRICULTURE.

Premium List—1836.

The Trustees of the Massachusetts Society for promoting Agriculture believe that the interest of agriculture will be better promoted by appropriating all the money at their disposal for premiums, for the encouragement of well conducted farms, rotation of crops, and other agricultural experiments, the operation of the dairy, the importation of new breeds of stock, remarkable for the quantity and quality of their milk, and their readiness to fatten, and a more thorough field culture of grain and vegetable crops, than by distri-

* Davy's Agricultural Chemistry.

buting any portion of it to the objects usually exhibited at the cattle show, in Brighton; and hope that they shall be justified in omitting the show for the present year. They flatter themselves the omission will not in any degree relax the energies of Agriculturists, but awaken their attention, and stimulate them to raising fine cattle for labor, and for the dairy, and the general improvement of other animals, that cattle shows in future may exhibit a greater degree of excellence than in former years, in the selection and preference for the best stocks.

In conformity with these views, the Trustees have concluded not to have a Cattle Show, at Brighton, this autumn, but propose to have an exhibition of butter and cheese, at a place to be designated hereafter by the Trustees, on Wednesday the seventh day of December next, and to offer the following premiums.

For Butter and Cheese exhibited, without regard to the place of manufacture.

For the best lot in tubs, pots, or firkins, not less than 300 lbs.	\$100 00
For the next best, not less than 300 lbs.	50 00
For the best, less than 300 lbs. and not less than 100 lbs.	30 00
For the next best, less than 300 lbs. and not less than 50 lbs.	20 00
For the best lot of Cheese, not less than one year old, and not less in quantity than 300 lbs.	50 00
For the next best, not less than one year old, and not less in quantity than 300 lbs.	30 00
For the best Cheese, less than one year old, and not less in quantity than 300 lb.	50 00
For the next best, of not less quantity,	30 00

The claimant for the several premiums on butter to be exhibited in the month of December next, must state, in writing, the following particulars, viz: the number of cows kept on his farm; the mode of keeping; the treatment of the milk and cream before churning; the mode of churning, winter and summer; the method adopted to express the butter milk; the quantity and sort of salt employed: whether saltpetre or any other substances have been used in the process; the best time for churning and keeping butter in hot weather, and the best mode of preserving it, in and through the summer and winter, and in what vessels.

The claimants for the several premiums on Cheese, must state the mode of making the same, and the following particulars, viz: the number of cows kept; whether the cheese is made from the proceeds of one, two or more milkings; whether any addition is made of cream; the quantity and sort of salt used, and the quantity of rennet; the mode of pressure, and the treatment of the cheese afterwards.

Farmers in the several states are invited to compete for these premiums.

Claims for the premiums on butter and cheese must be made in writing, addressed to Benjamin Guild, esq. Boston, post paid, on or before the 5th of December next, and the parcels deposited before Wednesday the 7th, at a place to be designated hereafter by the Trustees, on which day at 10 o'clock, before noon, the Committee will proceed to examine the lots offered for pre-

mium, and none will be admitted after that hour.

The premiums will be awarded at the same place on Thursday the 8th.

It is particularly recommended to the competitors, that the Butter may be put up in the nicest manner.

Each lot must be numbered but not marked, and any public or known mark must be completely concealed, nor must the competitors be present; in default of either of these requisitions, the claimant will not be entitled to premium.

And to take notice that there will be a public auction after the examination by the Committee, and those who desire to sell will have an opportunity without any charge for auctioneer's fees, but the government duty must be paid by the owner of the butter and cheese. And after the premium has been awarded, all the articles submitted must be taken care of by their respective owners, the committee having no further control or responsibility in regard to them. The Committee will be at liberty to withhold from the auction sale, any parcels either of butter or cheese, which they may have reason to suppose, from the ordinary quality of the same, or other circumstances, may have been sent merely for sale.

THE BEST CULTIVATED FARMS.

For the best cultivated farm,	\$150 00
For the next best cultivated farm,	100 00

The farm to consist of not less than 70 acres, exclusive of woodland. The owner or tenant, to entitle himself to either of the premiums, must state in writing, the nature and quality of the soil; the proportions suitable for tillage, mowing, and pasturing, respectively, and especially the quantity of irrigated meadow or low land, which is never tilled or ploughed, with as much particularity as he is able.

The number of acres planted the present year with corn, potatoes, and other vegetables.

The number sowed with winter and spring grains, and other vegetables, specifying the several kinds, and the number of acres planted or sown with each.

The quantity and kind of manure used for each crop, and the times and manner of applying it. The quantity and quality of each crop.

The number of acres mowed the present year, what proportion upland, what meadow or land that had never been ploughed, the kind of grass, and quantity of hay, according to the best of his knowledge, judgment and belief. His manner of dressing and manuring his meadow or mowing, and laying down his tilled land to grass, the kinds of grass seed, the quantity of each, the time of year it is sown, and whether with oats, barley, or other grain, or alone.

The form of the barnyard, and manner of collecting and making manure.

The number of swine kept and the quantity of pork made.

The labor employed in carrying on the farm and the quantity of ardent spirits (if any) consumed.

As it is deemed important to ascertain the best rotation of crops, it is desired that the applicants for those premiums will state the kind of crop, if not able to state the quantity raised on the several and respective places of tillage, and mowing

land described in their statements, for the year next preceding the present one.

The manner of feeding his stock in winter season; whether he gives his milch cows or oxen grain or roots of any kind, and the kind and quantity.

His treatment of calves he intends to raise; whether he lets them continue to suck, or weans them soon after calved—how soon—what food he gives them, and how long he continues to feed them.

If it be a sheep farm, the manner he treats his sheep in the winter; whether they are housed or left out in the yard, the food given them, and the time they generally lamb.

The Trustees think, that the utility of this premium materially depends on the particulars above mentioned being stated, with as much exactness as the nature of the business will admit; they do not, however, expect that the mowing, pasture or tillage land, should be actually surveyed, or the hay weighed; but only that the applicant should ascertain the quantities with as great accuracy as he can without, and state them according to his best judgment and belief. They think it proper to observe, that while they expect a substantial compliance with the terms above specified, an omission or want of exactness in some of the less important particulars, will not preclude an applicant from the premium, if on the whole his farm shall appear to be so well cultivated as otherwise to entitle him to it. The Trustees to be at liberty in all cases, before they award the premium, to visit by a committee, or such other persons as they may appoint, the farms of the applicants, if they deem it expedient.

The statement is to be signed by the applicant, but he is not required to swear to it. The trustees will rely upon the veracity of the applicant, and give the same credit to his statement as they would, if it were under oath.

N. B. Claims to be addressed to Benj Guild, esq. in Boston, post paid, before the first day of October next; and the evidence to support them to be sent as above, on or before the first day of January, 1837.

ROTATION OF CROPS.

For the best rotation of crops on the same land, not less than two acres, for three or four years in succession, commencing when it is in grass,	\$75 00
Premium to be claimed in December 1838 or 1839.	

It is expected the applicant will state the quality and condition of the land, when he first ploughs or breaks it up; the manner of preparing it each year, specifying the seed, whether potatoes, Indian corn, or other grain, planted or sown, and the kind and quantity of grass seed, the time when sowed, and whether with grain or alone, and the quantity of produce each year, including the last. The applicant's own statement, signed but not sworn to, is all that will be required.

GROWING AND PLOUGHING IN GREEN CROPS.

For the best way of improving and enriching a poor or exhausted soil, without manure, by growing and ploughing in green vegetable crops,

	\$75 00
Premium to be claimed in December, 1838 or 1839.	

The applicant is expected to state the quality and condition of his land when he commences, and particularly his manner of preparing and cultivating it each year, the times of ploughing, the kind and quantity of seed sown or planted, and especially the time and times he ploughs it for a crop to turn in, the kind and quantity of grain or grass seed sown, and the time and quantity of produce, if any, either year, and, if laid down to pasture, the quantity and quality of the grass. The experiment to be made on not less than two acres. The applicant's statement, under his hand, is all that will be required.

MIXED OR COMPOST MANURE.

For a compost of stable manure, and meadow or pondhole mud or muck, with or without lime, as the applicant pleases, which with the smallest portion of stable manure and lime if used, shall approach nearest to clear stable manure, in strength and efficacy in producing crops, \$50 00
Premium to be claimed in December, 1838.

In order to test the comparative strength and efficacy of the barn manure and the compost, it is proposed that a piece of land, not less than an acre, shall be prepared in the same manner, and divided in equal halves for quantity, and that stable manure shall be used on one half; and compost in the same manner on the other, and that corn or potatoes shall be planted in each, and that both shall be ploughed, hoed and treated in every respect alike, and an accurate account of the quantity and quality, whether slacked or not slacked, must be stated. A statement, signed by himself and one other reputable person not under oath, will be required.

VEGETABLE AND GRAIN CROPS.

For the greatest quantity of Carrots on an acre, not less than 500 bushels, \$20 00

For the greatest quantity of do. on half an acre, not less than 250 bushels, 10 00

For the greatest quantity of common Beets on an acre, not less than 400 bush. 20 00

For the greatest quantity of do. on half an acre, not less than 200 bushels, 10 00

For the greatest quantity of Mangel Wurtzel, or Scarcity Root, on an acre, not less than 600 bushels, 20 00

For the greatest quantity of do. on half an acre, not less than 300 bushels, 10 00

For the greatest quantity of Sugar Beet on an acre, not less than 400 bushels, 20 00

For the greatest quantity of do. on half an acre, not less than 200 bushels, 10 00

For the greatest quantity of Parsnips on an acre, not less than 400 bushels, 20 00

For the greatest quantity of do. on half an acre, not less than 200 bushels, 10 00

For the greatest quantity of Ruta Baga on an acre, not less than 600 bushels, 20 00

For the greatest quantity of do. on half an acre, not less than 300 bushels, 10 00

For the greatest quantity of common Turnips on an acre, not less than 600 bushels, 20 00

For the greatest quantity of do. on half an acre, not less than 300 bushels, 10 00

For the greatest quantity of Onions on an acre, not less than 600 bushels, 20 00

For the greatest quantity of do. on half an acre, not less than 300 bushels, 10 00

For the greatest quantity of Cabbages on an acre, not less than 25 tons weight, free from earth when weighed, 20 00

For the greatest quantity of do. on half an acre, not less than 13 tons, 10 00

For the greatest quantity of Vegetables (Grain, Peas, Beans excepted) for home consumption and not for sale, raised for the keeping of stock, regard being had to the size of the farm in proportion to the crop, and to the number of the stock kept, and also to the respective value of vegetables as food, and the expense of raising the same, 30 00

For the greatest quantity of Indian corn on an acre, not less than 75 bushels, (25 lbs. in the ear to be considered a bushel,) 20 00

For the greatest quantity of Wheat on an acre, not less than 30 bushels, 20 00

For the greatest quantity of Barley on an acre, not less than 45 bushels, 20 00

For the greatest quantity of Rye on an acre, not less than 30 bushels, 20 00

For the greatest quantity of Millet on an acre, cut and cured for hay, not less than three tons; the claimant giving evidence of the time of sowing, the quantity of seed sown, and the quantity of hay produced, 20 00

For the greatest quantity of dry Peas on an acre, not less than 30 bushels, 20 00

For the greatest quantity of dry Beans on an acre, not less than 30 bushels, 20 00

For the greatest quantity of Mustard Seed not less than 20 bushels, 20 00

For the greatest quantity of dressed Flax, not less than 500 lbs. from an acre, 20 00

For the greatest quantity and best quality of Hemp on an acre, 40 00

It is to be understood that the quantity of land specified above, is in each case, to be in one piece. And the claimant of any of the above premiums, shall, with one other person, make a statement according to the best of their knowledge and belief, to the following particulars, and shall obtain a certificate of the measurement of the land by some sworn surveyor.

The particulars are—

1. The condition of the land in the spring of 1836.

2. The product, and general state of cultivation and quality of manure used upon it the preceding year.

3. The quantity of manure the present season.

4. The quantity of seed used.

5. The time and manner of sowing, weeding, and harvesting the crop, and the amount of the product ascertained by actual measurement after the whole produce for which a premium is claimed, is harvested, and the entire expense of cultivation.

6. Of Indian corn, the entire crop of the acre to be offered for premium, is to be measured in the presence of the claimant, who is to sign the statement made by the person or persons, who did harvest and measure it; and to be measured between the fifteenth of November, 1836, and the first day of January, 1837.

7. At least forty bushels of the vegetables, for

which a premium is claimed (except onions, and common turnips) are to be weighed, and 56 lbs. free from dirt, will be considered as a bushel.

EXPERIMENTS, DISCOVERIES AND INVENTIONS.

For the experiment of turning in green crops, as a manure, on a tract, not less than one acre, and proving its utility, giving a particular account in writing, of the process and the results, \$20 00

For an effectual and satisfactory mode of extirpating the worm that attacks the locust tree, 100 00

For a new, effectual, and satisfactory mode of extirpating the worm which attacks the apple tree, 50 00

For any newly invented Agricultural Implement, or machine, superior to any designed for the same use, a reward not exceeding twenty dollars, according to the importance of the invention, 20 00

To the person who shall prove, to the satisfaction of the Trustees, that his mode of rearing, feeding and fattening neat cattle is best, 20 00

For the greatest quantity of raw unmanufactured Silk, not less than 10 lbs. raised by the claimant, and presented before the first of December, 1836, 20 00

TREES AND LIVE HEDGES.

For the best plantation of White Oak trees, no less than one acre nor fewer than 1000 trees per acre—raised from the acorn—not less than three years old, and which shall be in the most thriving state on the 1st September, 1836, 50 00

For the best plantation, not before offered for premium, of White Ash, Larch and Yellow Locust trees, each not less than one acre, nor fewer than 1000 trees per acre, to be raised from the seeds, and which trees not less than three years old, shall be in the most flourishing condition on the 1st September, 1836, 25 00

For the best Thorn hedge, not less than 50 rods, and which shall be in the most thriving state in 1838, 30 00

Claimants under the two last heads together with the proper evidence, must be delivered to Benjamin Guild, esq. in Boston, free of expense, on or before the first day of January, 1837.

Claims for the premiums on vegetable and green crops, and experiments and inventions, together with the evidences required, are to be in writing, and sent, free of expense, to Benjamin Guild, esq. in Boston, Assistant Recording Secretary, on or before the 1st day of December next, and they will be examined by the committee previous to the 7th day of December.

It is understood, that whenever, merely from want of competition, any of the claimants may be considered entitled to the premium, under a literal construction;—yet, if in the opinion of the judges, the object so offered is not deserving of any reward, the judges shall have a right to reject such claims. Persons to whom premiums shall be awarded, may, at their option, have an article of plate, with suitable inscriptions, in lieu of the money.

In cases where pecuniary premiums are offered, the Trustees may, having regard to the circumstances of the competitors, award either the

society's gold or silver medals, in lieu of the pecuniary premium annexed to the several articles.

That if any competitor for any of the Society's premiums shall be discovered to have used any disingenuous measures, by which the objects of the society have been defeated, such person shall not only forfeit the premium which may have been awarded to him, but be rendered incapable of being ever after a competitor for any of the Society's premiums.

Time of paying premiums—The treasurer will attend on Thursday, the 8th of December, at 12 M. to pay all premiums awarded.

All premiums not demanded within six months after they shall have been awarded, shall be deemed to have been generously given to aid the funds of the society.

By order of the Trustees,

JOHN HEARD,
WILLIAM PRESCOTT,
PETER C. BROOKS,
E. H. DERBY,
JOSIAH QUINCY, jr.

Committee.

March 1, 1836.

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 13. Editor Farmer & Gardener.

POINTERS FOR SALE.

A thorough bred Pointer Slut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendent. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars. Applications to be made to the editor of this paper. no 15 4t

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oct

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	5 75	7 50
CORN, yellow,	bushel.	80	88
White,	"	75	82
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
Louisiana 20a21—Alabama	"	18	21
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam	barrel.	12 50	13 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	—
" wagon price,	"	10 25	—
City Mills, super,	"	10 00	10 25
Do extra,	"	10 25	10 50
Susquehanna,	"	—	10 50
Rye,	"	7 00	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,	bushel.	7 00	7 25
Timothy (herds of the north)	"	3 25	3 75
Orchard,	"	—	2 75
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	8 25	8 50
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	45	46
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 25	—
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	—
RYE,	bushel.	—	125
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf, ..	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	2 25
Red, best,	"	2 05	2 10
inferior,	"	1 40	2 00
WHISKEY, 1st pf. in bbls,	gallon.	42	42 1/2
" in hhds,	"	39 1/2	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling, ..	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,	"	45	50 28 30
Three fourths Merino,	"	42	45 26 28
One half do,	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,	"	38	40 26 28
Howard st. Flour, sales limited, receipts very light.			

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured, ..	pound.	17	18
Shoulders, .. do,	"	—	15
Middlings, .. do,	"	—	15
Assorted, country,	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old, ..	each.	4 50	6 00
COWS, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	1 87	1 94
CHOP RYE,	"	—	2 25
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 50	—
Mackerel, No. 1, ——— No. 2	"	9 50	10 50
No. 3,	"	—	6 75
Cod, salted,	cwt.	—	—
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	Farmer's Bank of Virginia 1
Branch at Baltimore, .. do	Bank of Virginia, .. do
Other Branches, .. do	Branch at Fredericksburg do
MARYLAND.	Petersburg, .. do
Banks in Baltimore, .. par	Norfolk, .. do
Hagerstown, .. do	Winchester, .. do
Frederick, .. do	Lynchburg, .. do
Westminster, .. do	Danville, .. do
Farmers' Bank of Mary'd, do	Bank of the Valley, .. do
Do. payable at Easton, .. do	Branch at Romney, .. 1
Salisbury, .. 5 per ct. dis.	Do. Charlestown, .. do
Cumberland, .. 1	Do. Leesburg, .. 1
Millington, .. do	DISTRICT.
Washington, ..	Philadelphia, .. 2 1/2 a3
Georgetown, .. Banks, 1.	Ohio Banks, generally 3a3 1/2
Alexandria, ..	New Jersey Banks gen. 1 1/2 a2
PENNSYLVANIA.	New York City, .. 2 1/2 a3
Philadelphia, .. 3a	New York State, .. 2 1/2 a3
Chambersburg, .. 1	Massachusetts, .. 2a2 1/2
Gettysburg, .. do	Connecticut, .. 2a2 1/2
Pittsburg, .. 2a2 1/2	New Hampshire, .. 2a2 1/2
York, .. 1a	Maine, .. 2a2 1/2
Other Pennsylvania Bks. 1 1/2 a2	Rhode Island, .. 2a2 1/2
Delaware [under \$5], .. 3a4	North Carolina, .. 3 1/4 a4
Do. [over 5], .. 2a 1/2	South Carolina, .. 3 1/4 a4
Michigan Banks, .. 6a	Georgia, .. 3 1/4 a4
Canadian do, .. 6a	New Orleans, .. 6

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds. Price—per copy, 50 cents.

CONTENTS OF THIS NUMBER.

Account of the failure of the potato crops in Great Britain, together with an investigation as to the cause thereof—proposed premium for a preventive remedy for the wheat fly—mode of producing two crops of grasses in one year—interesting essay on agricultural chemistry, by Thomas Shapter, M. D.—Notice of proceedings of Agricultural societies—Massachusetts State Society's premium list for 1836—Advertisements, Prices Current, &c.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 34.

BALTIMORE, MD. DECEMBER 20, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, DEC. 20, 1836.

SHIPMENT OF DEVONS.

We shipped to Charleston, South Carolina, in the brig General Marion on the 8th inst. three four year old *Devon* bulls for sale. In so doing we were influenced by the two-fold desire of finding a market, and being instrumental in improving the breed of cattle in that quarter. Three animals of purer blood, greater beauty, or more perfect symmetry of form, we will venture the assertion cannot be found in any country. They were raised by Mr. Richard Caton, at his Brookland-wood farm, nine miles distant from Baltimore, and proceed without alloy from a stock originally presented by that pattern of Old English gentlemen and farmers, Mr. Coke of Holkam, England, to the Marchioness of Wellesley. We feel assured that no breed of cattle can be found better adapted to the climate and uses of South Carolina, than are the *Devons*. Gentle in their disposition, easy feeders; possessing great rapidity of action; the capacity to endure fatigue and heat, perhaps above all other breeds, and yielding a rich and sufficiently copious supply of milk, they will doubtless prove eminently serviceable, whether they should be used to cross with the native cows or put to service with their own peculiar breed.

DURHAM CATTLE.

We were called upon on Thursday last, by Mr. Chorley and his friend Shuttleworth, of Pennsylvania, to view a cow and three heifers, which the former gentleman had brought to our city, on their way to Virginia, where they had been sold.

The first was *Beauty*, a red and white cow, with small dark spots, six years old, descending, on the paternal side of her house, from *Comet*, a fellow, of whom it may be said, as it is of good "old wine," that "needs no bush." Of his de-

scendant, we will say, that she was every inch a cow. Her proportions, or to speak more technically, her points, were such as the most fastidious would approve; between her hips and ribs—those points above all others where the milk vessels "do congregate,"—there was most ample space, which sufficiently indicated that she was no stinted contributor to the milk-pail. It is there where we like to place our *finger and thumb*,—or as one more vaulting in his style would say,—our *digital members*. Indeed, the *whole cow* showed as clear as the light of Sol in his meridian splendor, that in all the attributes which belong to her noble race, she was most plenteously endowed,—and we were not a little gratified to find that the report of her owner and breeder, sustained our own opinion,—for he assured us that she gave 25 quarts of milk a day.

The second was a heifer called *Young Beauty*, out of the above cow, by *Bolivar*; well grown for her age, and in color and appearance resembling her dam.

The third was a red and white heifer, 1 year old, called *Young Cowslip*, out of a *Comet* cow, remarkably well grown, and showing good points.

The fourth was a dark red and white heifer, 2 years old, out of a *Comet* cow, by *Emperor*,—that mammoth of all bulls—whose superior size and great beauty of points, reflects sufficient honor upon his breeder to satisfy any ambition however reaching. This heifer was in calf, and though she could not boast of length of body, showed that in *depth*, she had ample room to bear her burthen withal.

We cannot close this paragraph without observing that, we sincerely hope the patriotic purchasers of these fine animals, will find more than their most sanguine hopes realized, and that their laudable example will stimulate their neighbors and friends to imitate their good deeds.

We had almost forgotten to mention that Mr. Chorley also showed us a beautiful young bull, a red and white, 2 years old last September; good size and fine points, with a head and neck as clean as a cow. This latter animal will remain under our charge a few weeks for sale. He can be seen at Hugo's stables, North Frederick street,

for 2 weeks. Any person wishing to purchase, will apply to the editor of this paper, who will take pleasure in showing the animal and making known the terms.

Our friend Camp, we find, with feelings of pleasure, has again resumed his editorial labors, having removed from New Castle, Delaware, to Wilmington in the same State, and changed the name of his paper from the "New Castle Gazette" to that of "The Delawarean." Since the change we have received two numbers, and when we looked upon the industry exerted in the editorial columns, and the good taste displayed in those appropriated to selections, we were strongly reminded of the beauty and force of the sentiment so finely expressed by Shakspeare, in which he says:—

"That which we call a Rose,

"By any other name will smell as sweet."

We wish, in all sincerity, that the measure of his support may be equal to his deserts, and in saying *that*, those who are aware of his talents, industry, and well directed exertions, will know that should he receive it, he must, indeed, be an inordinate fellow, if he be not satisfied.

We publish in another part of this day's Journal, "*A caution to Silk Growers*," by the editor of the *Genesee Farmer*, and commend it to the perusal of every advocate of the cause. While we hope for the honor of humanity that Mr. Whitmarsh, has himself been imposed upon, we must in all candor remark, that appearances justify even the decided tone in which he has been denounced. We bought one of the papers of the seed alluded to, of Mr. Whitmarsh's agent in New York, and we must confess we were not, at the time, of the opinion that we were buying seed of the *Morus Multicaulis*; but as the advertisement which we saw specified, a variety of the Chinese Mulberry, superior to that, in consequence of its capacity to withstand our long continued frosts of winter, we gave for the parcel \$5, and without weighing it, thought it might have contained *one-third* of an ounce, which would have been at the rate of \$240 per pound. The editor of the *Genesee Farmer*, however, who purchased 3 papers, weighed his parcels

and found they contained but *one-sixth* of an ounce, which was at the rate of \$490 per pound. We received our seed in July last, and immediately prepared a fine loamy bed in the richest part of our garden, in order that the young plants might receive every possible benefit from soil and exposure. The paper purported to contain seed enough to make 4000 trees, but after the most careful attention which we could devote to it, but 50 plants came up. They grew finely, and to our surprise, when they had acquired the height of about 18 inches, and the young trees had fully developed their characteristic traits, we discovered they were nothing more nor less than *Morus Alba*, or *White Italian Mulberry* plants. This opinion we arrived at after the most careful examination of, and comparison with, plants of that variety, which we had growing in another part of our garden, for the seed of which we had paid \$6 per pound, and which so far as the power of germinating was concerned, was as superior to that of Mr. Whitmarsh as it is possible for one article to be over another. We mentioned our apprehensions to some friends, but as Mr. Whitmarsh, though a stranger to us, stood very high as a zealous advocate of a branch of husbandry which, in our opinion, was better calculated than any other to advance the interests, and promote the prosperity, and consequent happiness, of a large portion of our countrymen, we had determined before we should say any thing publicly on the subject to give to our 50 plants the advantage of another season's growth. When we came to this conclusion, we were not aware that Mr. Whitmarsh's advertisements had assumed a protean form, for we had only seen the *last one* mentioned by the editor of the *Genesee Farmer*: had we known of the existence of the first, we should have felt ourself bound, in duty to a much injured public, to speak at once of the disingenuous fraud, in terms of marked reprobation; for we hold it as of a truth, that any man who would avail himself of the advantages of his relative position—of the anxiety of the public to procure an article—to impose upon that public, has less claims to the sympathy and respect of the community than would a highwayman, who had robbed a traveller, because in the latter case, there would have been no confidence betrayed, and there is more or less of chivalry displayed in all such feats; and courage, whether well or ill exerted, has a redeeming quality about it, which makes one, in despite of the cause of sound morals, admire the daring, however much he may be disgusted with the villainy of the action that may have led to it.

We shall conclude with the iteration of the hope, that Mr. Whitmarsh may be able to make out a case, which will show that he himself has been unwittingly *duped* in Europe; for there is no other saving grace by which he can escape universal execration—But then, how will he account for the *change* in his advertisements?—There's the rub!

[From the *Genesee Farmer*.]

CAUTION TO SILK GROWERS.

An advertisement has been sent us from Northampton, (Mass.) for publication, announcing that Mr. Whitmarsh's agent "offers for sale the seed of the genuine *Morus multicaulis*, raised in France the present year." We decline publishing the advertisement, because we deem the establishment from whence it emanates unworthy the confidence of Silk growers. That those interested may know the grounds of our want of confidence to Mr. Whitmarsh and his agent, and in the fulfilment of a duty which we think we owe to those who are interesting themselves in every measure calculated to forward the Silk business in this country, we proceed to lay before our readers a statement by which they may judge for themselves of the honesty of Mr. Whitmarsh and his agent. We would, however, remark, lest some may think we are actuated by other motives than a desire to prevent imposition, that we know nothing of Mr. Whitmarsh, only by common report, which states him to be a man of great wealth, and we had, until the transaction which we are about to detail, occurred, considered him as a patriotic, public spirited individual, who was laboring to promote the public good by the introduction of the culture of Silk into our country, and further, we may state, that we have no *personal* interest in the matter, as we are neither engaged in the culture or sale of the Mulberry, and desire only to caution the public against those who may be disposed to defraud them.

In the spring of 1836, the following advertisement was published in the "*Hampshire Gazette*," edited by Mr. Whitmarsh's agent, and in several other journals:

CHINESE MULBERRY.

FOR SALE,

FIFTY THOUSAND TREES of the *MORUS MULTICAULIS*, together with a quantity of

The GENUINE SEED

of the *Chinese Mulberry*, in papers sufficient for between 3 and 4000 plants each.

THE above was purchased by Mr. WHITMARSH of this town in Europe in person, shipped the fore part of this month, and will soon be ready for delivery to order in this country. The seed was procured by Mr. Whitmarsh with great care, and is by him warranted fresh from trees in Europe of the growth of 1835. Purchasers will be sure of obtaining from this seed choice trees at a low price.

Orders for Trees or Seed addressed to the subscriber, editor of the *Hampshire Gazette*, postage paid, will be duly attended to.

C. P. HUNTINGTON, Agent for
S. WHITMARSH.

The reader should bear in mind that the *Morus multicaulis* is the only mulberry generally known in this country as the *Chinese*, and that by these terms the same plant is meant, when they are used in our agricultural journals. Consequently the advertisement was understood to say, that the plants and the seed mentioned in it were the same, both being the Chinese Mulberry or *Morus multicaulis*. It was so understood by us—it was so understood by Reynolds & Bateham, proprietors of the Rochester Seed Store—by Mr. Rowe, the proprietor of the Monroe Nurseries—by the Messrs. Thorburns, Seedsmen in Albany and New York, and by every person whom we have seen, who knew any thing about the business. Under this impression, large orders were given for the seed, as it was considered an article of very great value, and it was, if we mistake not, the first which had ever been advertised in this country. On the arrival of the seed at Northampton, no time was lost in supplying the orders, as we infer from the fact, that an agent was despatched through this section of the country with it. The agent was here on the fourth of May, and we may reasonably infer that the seed had been generally distributed by that time, for on the fourth of May the following article was published in the editorial columns of the *Hampshire Gazette*, then edited by the above named C. P. Huntington:

"THE CHINESE MULBERRY SEED which we advertised a few weeks since for Mr. Whitmarsh, has come to hand, and can be had by calling at our office at \$5 per paper, containing sufficient for between three and four thousand trees. To prevent misapprehension, we would state that this is not the seed of the *Multicaulis*, that being a species of the Mulberry which bears very little seed, but of a kind obtained by great pains from the North of Italy on account of its better adaptation to our climate, as Mr. W. thinks, and fully equal to the *Multicaulis* in abundance of foliage. Its leaves are about two thirds of the size. The Silk Company intend to propagate this from seed, together with the *Multicaulis* from cuttings, &c. The seed is very pure and clean, and probably nearly every seed will germinate. Mr. W. brought out several varieties of Mulberry not known here, for experiment. His *Multicaulis* trees will be here in about a fortnight."

Here—after the orders had been supplied—the fact is unblushingly confessed that the seed was not what it purported to be—was not the *Morus multicaulis*, (the only Chinese Mulberry known here,) but "a kind obtained by great pains from the North of Italy."

Having thus shown that the seed was not the Chinese Mulberry by the confession of Mr. Whitmarsh's agent, we will now show how far the seed agreed in *quantity and quality* with the advertisement and the editorial article copied above, which both state that the papers, which were sold for \$5, "contained sufficient for between three and four thousand plants each."—We have one of these \$5 papers now before us, and have had the seed accurately weighed, and find it to contain just *one-sixth* of an ounce—and if we remember rightly this is the same amount which Mr. Thorburn, Seedsman of Albany, told us last spring was contained in the papers which he received.

Messrs. Reynolds & Bateham, seedsmen of this city, received four papers, which they ordered for their customers, but which they refused to sell after being informed that the seed was not what it purported to be. They planted it, and they now inform us that the product was about three HUNDRED plants, instead of between twelve and sixteen THOUSAND, as there would have been had the statement in the advertisement proved true. They also state that they have been unable to discover any difference between the plants and those of the common White Italian Mulberry.

We are also informed by Mr. Ralph Cheney, late of Manchester, (Conn.) a gentleman who is extensively engaged in the Silk business, that he sowed two papers of Mr. Whitmarsh's seed, from which, with the greatest care and attention, he raised only about 300 trees; and that he has not been able to discover any difference between them and the common White Mulberry.

Having understood that Mr. Rowe, the proprietor of the Monroe Horticultural Garden and Nurseries, had purchased some of the seed, we addressed a letter to him, soliciting his opinion of the value of Mr. Whitmarsh's seed. His answer is so much to the point, that it needs no comment. It follows:

MR. L. TUCKER—In reply to yours, I would state that I purchased of an agent of Mr. Whitmarsh, 3 papers of seed purporting to be Chinese Mulberry, for which I paid \$15. I put the seed into the best prepared soil that I had, and took the utmost pains to have it produce all that was possible, and from the 3 papers of seed I have 420 plants, *all told*; and in my opinion there was nothing but genuine White Italian Mulberry produced from the seed. I sowed a parcel of the White Italian Mulberry seed received from Mr. Comstock, of Hartford, in the *same bed*, and I could not distinguish any difference between the two parcels sown—one Mr. Whitmarsh's Chinese Mulberry, and the other the White Italian, as received from Mr. Comstock. Mr. Wilson has, through the season, since the plants unfolded their leaves, pronounced Mr. Whitmarsh's nothing different from the White Italian, such as we commonly get or buy at the seed-stores.

The seed that I paid \$15 for, I should think was worth to me twenty-five cents at the utmost, at the rate I paid Messrs. Reynolds & Bateham for the White Italian Mulberry by the pound.

My opinion has been, since the seed came up that I purchased for the Chinese Mulberry, that there was nothing but fraud intended, and I have wished for an opportunity like the present to express my opinion on the subject, and I think that it would be no more than an act of justice in you as a public journalist, to give to your subscribers an intimation that it might be for their interest to beware of being gulled as I have been, and also to chastise an individual that attempts to take such a step to advance his pecuniary interests.

Respectfully yours, ASA ROWE.

From the foregoing statements, we infer:

1st. That Mr. Whitmarsh, by his agent C. P. Huntington, has advertised and sold, under the name of Chinese Mulberry, a seed which he knew was not the *Morus multicaulis*.

3d. That, taking advantage of the desire of

the public to procure the seed of the *Morus multicaulis*, he has sold large quantities of this spurious seed, at the enormous price of *Four Hundred and Eighty Dollars per pound*.

3d. That the seed sold was nothing more or less than the seed of the White Italian Mulberry, (or a variety of no more value,) and was worth *fifty cents an ounce*, instead of *thirty dollars the ounce*, the price at which he holds it.

With these facts before the public, we leave it for them to decide whether we have just grounds for the declaration, that we deem Mr. Whitmarsh's establishment unworthy the confidence of Silk Growers.

We find the following notice of the above in the Northampton Courier of the 14th instant, which we append with great pleasure, and shall be happy to insert any thing which Mr. Whitmarsh, or his agent may prepare, and sincerely do we hope that they both may be able by their expositions to stand *rectus in curia* before the American public. Of Mr. Whitmarsh, as we have stated, we know nothing personally; but report of his character and standing had impressed us with a highly favorable opinion of his virtues as a man, and public spirit as a gentleman of industry and enterprise, and we can assure him that we would be the last to tarnish his fair fame in either capacity. Of his agent we have no knowledge whatever, and did not know that there was such a person until we saw the exposition of the Genesee Farmer. We can, therefore, have no sinister purpose to subserve, and in the publication against them only yield our consent to the impious necessity of the case. If their hands are clear, as we trust they will be able to prove, we can only say we shall feel inexpressible gratification in so declaring to our readers.

Mr. Whitmarsh, and his agent here, Mr. C. P. Huntington, are both assailed in the Genesee Farmer and Albany Silkworm, with unsparing severity, because the mulberry seed they have sold does not all germinate, and because it is not the genuine *Morus Multicaulis*, but as Mr. Whitmarsh asserts, a Chinese Mulberry of superior quality. These gentlemen are charged in very unequivocal terms, with practising on the credulity of the public, and imposing upon them with gross deception and fraud. Mr. Whitmarsh and his agent here are altogether superior to any thing in the form of wilful deception. They neither of them would stoop to the slightest species of fraud, and we pledge ourselves to those who do not personally know these gentlemen, that their integrity and honesty cannot be impeached by any man. We refrain from farther details, as they both will publicly set right this matter.

MARBLE CEMENT:

An important improvement, which has been for several years in progress, is about being introduced to the more general notice of the public,

and we believe into extensive use for building purposes. It is a composition or cement, of which the principal ingredient is marble or limestone, which when applied to the inner or outer walls of buildings, presents the appearance of polished marble, of the various hues and qualities which distinguish the material imitated. What would be thought of a magician, who possessed the power of changing the sombre brick and stone walls of the buildings of a city, in a week, into substances resembling the most beautiful Grecian, Italian, Egyptian or Verd Antique marble, or porphyry, like the rock of Gibraltar? Yet all this may be done by this invention of a humble citizen of Orange County in this state. This cement has been sufficiently tested by experiments on buildings, to satisfy practical men of its decided superiority over any other cement, stucco, or other hard finishes for walls, hitherto unknown. In our next number we expect to be able to finish the subject; and in the mean time we can state, that a company has been formed in this city, to carry on the operations connected with the manufacture of this cement, and its application to buildings.—N. Y. Farmer.

EXTRACT FROM LAWSON'S USEFUL WORK, THE AGRICULTURIST'S MANUAL.

Tree or Cow Cabbage. Habit of growth, strong and upright, with numerous branches, and rather small and thin, smooth, vivid, green-colored leaves, stalks or branches very hard or woody, except towards the point, roots large and spreading, average height about five feet; but in very deep rich soil, the plants will often attain double that height before beginning to shoot or run to seed. In Jersey, and some of the northern departments of France, where this variety is chiefly cultivated, the longest of the stalks are used for supporting kidney beans, peas, &c., and also as cross-spars for the purpose of supporting the thatch or roof of the smaller class of farm buildings, cottages, &c., and when kept dry, are said to last upwards of a half a century. (For farther information, see Loudon's Gardener's Magazine; and Encyclopedia of Agriculture.) This variety is also known by the following names:—Chou Chavalier, Chou a Vaches, Branching Cabbage, Jersey Kale, &c. The produce of seeds of this last variety, however, which were produced from France, seems to be slightly different from the true Cow-Cabbage, and to occupy an intermediate space between it and the thousand-headed cabbage. Another variety received from the same quarter (and said to be only of recent introduction,) under the name of Chou Laponie Lapland Cabbage, seems to differ very slightly from the true Cow-Cabbage, and may be considered as only a very slightly improved variety.

In Museum, a specimen of a stalk of Cow-Cabbage $\frac{1}{2}$ 1-2 feet in height, by the very reverend Principal Baird.

Cultivation of the Cabbage. Much has been said and written recommendatory of the Cabbage tribe being more extensively subjected to field culture in this country, for feeding cattle, sheep, swine, and even poultry; but, judging from many trials, which have been made, as well as from the natural habits of the whole tribe, their cul-

ture seems only likely to be attended with any chance of decided advantage on the most superior or class of soils, particularly on such as are of rather strong texture, and where an abundant supply of manure can be had; and even in many such cases it is questionable how far they ought to be preferred to turnips, over which, however, they possess the advantage, as has been already hinted at, of improving rather than deteriorating, the quality of the milk of the cows fed upon them, and also of growing freely on lands which are too stiff in texture for the growth of any sort of turnips.

In field culture, the cabbage tribe may be planted in March, or May, or June, the plants in the former case being the produce of seed sown in the previous autumn, and in the latter case they may be from seed sown in February or March immediately preceding. The young plants should be dibbled in on the top of drills prepared in the same manner as is usually done for turnips, with the addition of a slight rolling, to level or smooth down the tops; the drills may be made at the distance of two feet, and the plants placed at the distance of fifteen or eighteen inches in the row, increasing or diminishing the width and distance according to the size and habit of growth of the variety (at the distance of two feet by one and a half; 14,500 to 15,000 plants will be required for an imperial acre.) The after culture of hoeing and weeding is the same as required in other drilled green crops. The Cow-Cabbage, kale and other open headed varieties, will yield a regular supply of leaves from the time when the plants are from one to two feet in height, which are obtained by stripping off the under tiers successively, until the entire crop be taken; but in the case of the other cabbages, stripping off the leaves, if at all attempted, should be done with more caution, otherwise the swelling and forming of the heads will be materially checked. These last should be all off the ground before the winter sets in with severity, otherwise the outer leaves are apt to become injured, in which case they, as well as decayed leaves at any period, should never be given to milch cows, as they impart a disagreeable taste to their produce. The open-headed sorts, however, may be allowed to remain on the ground with less danger of being injured, until they shew symptoms of running to seed, after which period they, together with all the Brassica, become very exhausting to the soil, a disadvantage which, in rather a considerable degree, is said, and seemingly not without good cause, to attend the Cow Cabbage, and some of the other large varieties, at all periods of their growth.

[From the Dumfries Herald.]

IMPROVEMENT OF THE BREED OF SHEEP.

The subject of our present paper requires, for its due consideration, some slight attainments of anatomy and physiology, but as such attainments, slight though they may be, are as rarely met with as required among the bulk of mankind, so the want of them may be the less regretted, seeing it is in our power to render even the intricacies of the subject plain and simple, by an appeal to facts of every-day occurrence, which having at-

tracted the notice of the most unthinking, will serve as hooks on which we will try to hang the better part of our interesting study.

From the time of Jacob, the possibility of determining the nature of the offspring, by impression on the parents, has been apparent to all, and the best means of perpetuating a good quality, or removing a bad one, have, from time to time, occupied the attention of patriotic individuals.

As much appears to have been known about sheep, two thousand years ago; at present, so true is it that nothing new is to be met with, that does not rob our improvers of their merits, for though they deserve little as inventors, yet are they to be admired for their strength of mind and determined perseverance which enabled them to rouse their fellows from a lethargic slumber, and compel them to become in turn benefactors of their country and themselves. The signs of a good ram are concisely laid down by Varro, by Virgil in his third Georgic, and by Columella; and though the Spanish nobility were looked upon with wonder (till eclipsed by our own extravagance) in giving two hundred ducats or fifty pounds, for a ram; yet Strabo assures us that in his day (under Tiberius) they gave more than three times that sum for one of the breed of the Coraxi, a Pontic nation, believed to have the finest sheep in the world.

There cannot be a more certain sign of the rapid advances of a people in civilization and prosperity than increasing attention to the improvement of live stock. It tells of a population limited in regard to soil, and using every effort to remedy that want, by an economical doubling of the return for the usual outlay, for while a tribe wanders at large, remaining at a particular place only so long as provender holds out, and striking the tent departs for some far off field, so long will their flocks be suffered to roam neglected, and flourish or decay as chance directs.

The greatest recorded improvers of the sheep in ancient times were Lucius, Junius, Moderatus, Columella, and his uncle Marcus Columella, Spaniards of distinction, who removed to Rome in the reign of Tiberius, and made agriculture the study and business of their lives. The former commenced his celebrated treatise on husbandry during the reigns of Tiberius and Caligula, and appears to have finished it Anno Domini 55. It is a work that may be read with advantage even at present, as it abounds with much that is valuable, and is accessible to all through its English translation.

The first in moderns who arrived at any thing like eminence by his attention to this department was Joseph Allom of Clifton, who raised himself, by dint of industry, from a plough boy, and for a long time contrived to keep his method secret, being supposed to have bought ewes in Lincolnshire at the very time he was constantly bringing them from the Melton quarter of Leicestershire. Though possessing talent, he does not appear to have had education enough to avail himself of it, and accordingly never gained the extensive popularity which fell to the lot of Bakewell. This latter gentleman, who may be said to have created a variety, considered that a tendency to acquire fat was the first quality to be looked to in an animal destined for the food of man, and on this, with him a fundamental principle, were based

the whole of his proceedings. This variety, named the Dishley or New Leicester, from the residence of Mr. Robert Bakewell, has already received from us the outline of a description, and will with the merinoes, occupy the most of our attention in this paper, as tending materially, by their history, to elucidate some of the most important points connected with the influence of place and circumstances on the animal in general.

Mr. Bakewell succeeded in bringing his sheep to great perfection, as regards form and rapidity of fattening, by breeding in the same family for a great many years; but it has been attended with considerable deterioration in the quality of the wool (it being a rule that the poorer the sheep are, the more prolific, and the finer does the fleece become,) a circumstance which met with a check some years after the introduction of the merino, in 1788, which is well known in all its crossings principally to effect that part of the animal.

Merino sheep, so called from a peculiar reddish hue of the countenance, are supposed to have come originally from Africa; at least Marcus Columella having seen a strange variety from that country exhibited at Rome during some public games or shows, took them to his farm, and having crossed them with other breeds, sent the offspring to Spain, in which country they thrived remarkably, attracting the attention of other nations, to whom from time to time, they were exported, and at present may be found in almost every part of the world.

They were at one time in much request in various countries from a supposition that they would speedily supplant other breeds; but this has never been the case, as it would appear the animal soon degenerates when out of Spain, and is only valuable as far as giving rise to varieties by crossing, which are equal if not superior to itself.

The most remarkable feature in their history was their being sent some time during last year from New South Wales to the Cape of Good Hope along with Saxon sheep, a circumstance the more to be wondered at, when we consider the wide difference of the colonies in regard to age, the former having been established only 47 years, while the latter has existed not less than 160.

Merinoes were brought to England for the first time in 1788, but attracted little attention till the commencement of his Majesty's sales in 1804. Lord Somerville, in 1801, went to Portugal for the sole purpose of selecting such animals as appeared valuable, from uniting a good carcass with a superior fleece, and he succeeded, notwithstanding the disturbed state of the country, in obtaining specimens which called forth the praises of the shepherds, through whose travelling flock they passed.

Their distribution over the country was accomplished by the formation of the principal landed proprietors and eminent breeders into a Merino Society in 1811.

The merinoes had much prejudice to encounter, but gained some powerful advocates, as is well known by the high prices they brought at the annual sale. The first sale took place in 1804, when the average price of the rams was £19 14s. and of ewes £8 15s. 6d. each. At the second sale in August, 1805, seventeen rams and twenty-one ewes sold on an average at rather more than £30 each. In 1808, the average price of

rams was £33 10s.; and that of ewes £23 12s. 6d. In 1810, thirty-three rams sold on an average at more than £58 each, so that up to this period they appear to have been steadily progressing in public favour; yet strange though it may appear, all those advantages were at once destroyed on the establishment of the Merino Society, and we may perhaps account for it in the supposition that the institution of local committees, which immediately followed, allowed the enemies of the change in different parts of the kingdom ample opportunity of striking at the scheme, now that it was entrusted, in many instances, to persons ill qualified for the task, either of making converts, or retaining the advantages they had gained. Even if unopposed, they must have gradually sunk into neglect, as the gains by means of the wool, was reduced to a trifle, when the loss of weight and fineness in the carcass was taken into account. Mr. Hose of Melton Mowbray, put a certain number of Leicester ewes to a ram of the same breed, and an equal number to a merino ram. The result was, that the Leicester fleece weighed 7 lbs. and that from the cross from the merino 8 lbs.; and that the former brought in the market 1s. per lb., and the latter 1s. 6d., being a gain of 5s. on the fleece. The carcass of the former, however, weighed 27 lbs. per quarter, the latter only 25 lbs., being a loss of 8 lbs. on mutton. There are few flocks of the pure merinoes now existing, and little trace of any good they have done can be discovered even in Ireland, though ten thousand were sent into that country in 1810 by Sir James Stuart.

Much advantage may, however, be expected from our crosses with the Saxon merino, which is in every respect well suited to our notion of a fine animal, as it yields a fine wool, and is little inferior in carcass to some of our best breeds.

The best form for a ram is that described by Mr. Culley, in his excellent work on live-stock. "His head should be fine and small; his nostrils wide and expanded; his eyes prominent and rather bold or daring; ears thin; his collar full from his breast and shoulders, but tapering gradually all the way to where the neck and head join, which should be very fine and graceful, being perfectly free from any coarse leather hanging down; the shoulders broad and full, which must at the same time join so easy to the collar forward and chine backward, as to leave not the least hollow on either place; the mutton upon his arm or fore-thigh must come quite to the knee; his legs upright with a clean fine bone, being equally clear from superfluous skin, and coarse hairy wool from the knee and thigh downwards; the breast broad and well forward, which will keep his fore legs at a proper wideness; his girth or chest full and deep, and instead of a hollow behind the shoulders, that part by some called the fore flank, should be quite full; the back and loins broad, flat and straight, from which the ribs must rise in a firm circular arch; his belly straight; the quarters long and full, with the mutton quite down to the hough, which should neither stand in nor out; his twist deep, wide, and full, which with the broad breast, will keep his fore legs open and upright, the whole body covered with a thin felt, and that with bright soft wool. The nearer any breed comes up to the above description, the nearer they approach towards excellence of form."

As an amusing contrast to the above well-drawn picture, we give an extract from the work of our ancient agriculturist Columella.

"Therefore, the way to judge and approve of a ram, is not only that of observing if he is clothed with a white fleece, but also if his palate and tongue are of the same colour with his wool; for when those parts of his body are black or spotted, there arises a black or speckled offspring. And this among other things, the same poet I mentioned above, (Virgil, Georg. Lib. iii.) has excellently pointed out in such numbers as these:

"Reject him tho' the ram himself be white,
Under whose ousy palate lies concealed
A black or spotted tongue; for with black spots
He'll stain the fleece of his future race."

After some amusing remarks on the same subject delivered in a very quaint way, he concludes his description with the mention of "twisted horns,"—"not because this last is more useful, for a ram without horns is better,) but because horns that are twisted and bended inwards are not at all so hurtful as those that are set upright and expanded. Nevertheless, in some countries where the climate is wet and windy, we would wish for he-goats and rams even with the very largest horns; because when they are high and extended, they defend the greatest part of the head from the storm."

It is thus that among some of his beautiful remarks, we have generally a something occurring which upsets the gravity of the whole by its childish absurdity.

Though there are several methods pursued by breeders for the improvement of flocks, the one most in vogue is that of choosing individuals of the same family, and breeding in and in—but it is generally allowed to be a plan, requiring for the safety of the flock either very great skill in selecting the males and females, or only to be followed in a very limited extent. The object in breeding in and in is to strengthen good qualities, and get rid of bad ones as soon as possible; and it is plain, that, if we happen to select animals with slight imperfections, these imperfections will become hereditary, and will go on assuming a worse and worse type, till the breed is destroyed. Cully, however, is of opinion, that crossing with a different stock is not necessary to keep up size, hardiness, &c., an instance of the wild cattle in Chillingham Park, in the county of Northumberland, which having been confined for several hundred years without intermixture, must have bred from the nearest affinities, and yet are just as they were five hundred years since.

In spite, however, insulated conclusions to the contrary, the system of breeding in and in where the slightest defect exists, proves as destructive to flocks, as marriages of near relations to the human kind. We would not witness an every day entailment of diseases, if people would forego their unnatural love of money, and cease their endeavors to keep it in the family by forming matrimonial alliances with those who are near of kin. The law of God forbids us to wed those who stand in certain degrees of propinquity; but if we avail ourselves of the limits of this law, and marry on its verge, we and our descendants

a certain number of times, misery must infallibly be the lot even of the tenth generation, and instead of being the fathers of a mighty people, few and full of sorrow will be the day of our children; while, in place of retaining in their possessions our darling wealth, it will ere long pass into the hand of the stranger.

Our position, however, will be strengthened by drawing attention to insulated portions of our race, where the effects of such a system are exhibited on a considerable scale. The members of the Society of Friends were at one time supposed to be of all others, the least subject to insanity; but the very reverse is the case, being, from the limited nature of their sect, driven to frequent intermarriages, and to a consequent deterioration of the most active part of the human frame—the brain; and it is for the same reason that almost every royal family contains a large proportion of idiots, or, at the best, persons of a very weak understanding; and such will continue to occur, till legislators fall on some plan of striking at the groundwork of the mischief.

If the laws of God and man define to us so clearly the evils of intermarrying; and if as all animals are constructed on one grand plan, we admit the proximity of the sheep to the human race, it follows, that what is destructive in this respect to the one, is destructive to the other, and that we should seek, by a nearly similar, if not wider range of rules, to obviate many of those diseases of which, when under our protection, they are so frequently the subjects.

The preferable and most common practice is to breed from different families of the same race, the males of which are interchanged after they have had shades of differences impressed on them by the influence of various soils and treatment; so that the defects of each family are gradually lost, and their valuable properties are gradually heightened.

Mr. Culley for many years hired his rams from Mr. Bakewell, at a time when other breeders were paying a liberal price for the use of his own. Much good has been done by making the rearing of superior rams a separate pursuit, and letting them out to distant parts of the country, in this manner diffusing some of the most valuable points of particular breeds, and leading to a spirit of competition. The practice has been reprobated, but we presume, rather in a hasty manner; for, with all its attendant evils, such as leading to deception by what is termed the *making up* of rams, it possesses excellencies which will, we hope, lead to its continuance.

The only other method of improving a breed is by crossing two distant races, one of which possesses the properties it is desirable to acquire, and wants the defects we wish to remove. This, however, is a measure not to be recommended, and only to be resorted to when neither of the others will do, for it is scarcely possible to obtain the desirable properties, without at the same time imparting qualities sufficient to neutralize them, and with which, in fact, we would rather dispense. To cross, as Mr. Cleghorn remarks, any mountain breed with Leicester rams, with a view to obtain a propensity to fatten at an early age, would be attended with an enlargement of size, which the mountain pasture could not support, and the progeny would be a mongrel race

not suited to the pastures of either of the present breeds.

Whenever we attempt crossing, we should select well-formed parents, and if enlargement of the carcass is wanted, the progeny should be better fed than its originators, the size of which should not be much disproportioned at first, as nature in every case abhors sudden extremes, and does every thing in the most gradual manner. It is much better when some increase has been produced to bring the breed to the required size by one or two crossings.

No animal varies more than that of sheep, and no one so speedily adapts itself to soil and situations; it would almost appear that nature, convinced of the exceeding utility of the animal, had given it a constitution of so pliant a nature as to enable it to accommodate itself to any climate, for though its natural situation, like that of man, appears to be the wine countries, yet with him it has spread to every quarter of the globe, becoming impressed at every change with some peculiarity, alterable only by a change of situation, varying, we might almost affirm, with the weather—for where the temperature is equable, there does the animal preserve unchanged an atmospheric stamp, and defies our efforts to alter the breed; while under a fluctuating sky, we can model it at will, and with common care secure them for years in one undeviating course. These changes incident to climate, are called, in philosophical language, acclimation, or the working of a power inherent in most animals and vegetables, by which they are suited within certain limits, for bearing up against removal from their ordinary localities, and assuming a different cast as the place of their exile may differ in degree from that which they have left.

BRASSICA—TURNIPS.

[The subjoined valuable account of the different varieties of turnips, is extracted from the "Agriculturists' Manual," a work recently published by Lawson & Son, of Edinburg, seedsmen to the Highland Agricultural Society. The work is such as we should have expected from gentlemen possessing such knowledge, industry, and zeal, as the Messrs. Lawson. The agriculturists are much indebted to them for this valuable addition to the stock of practical agricultural works, and will, we are persuaded, readily evince their approbation by possessing themselves of a publication embracing a complete history of all the varieties of grain, pulse, roots and grasses, worthy of being cultivated by the British Farmer.—Ed. F. M.]

BRASSICA CAMPESTRIS RUTA BAGA.

(RUTA BAGA OR SWEDISH TURNIP.)

In its specific character the Ruta бага, or Swedish Turnip, differs from those of the Summer rape, of which it is only a variety, in having larger fleshy swollen globular or subrotund roots, while those of the rape are small, fusiform, and hard.

The Swedish Turnip is harder than any of the common sorts (varieties of *B. rapa*), and in ad-

dition to its being more esteemed as food for horses, through the turnip season, is better adapted for spring feeding generally. It however requires a somewhat stronger and superior class of soils, together with a greater allowance of manure, but may, upon the whole, be considered equally if not more deserving of attention than the others, notwithstanding which its cultivation has hitherto been comparatively little attended to in some districts of Scotland. Swedish Turnips are generally sown from about the middle to the end of May, and 2 to 2½ lbs. of seed per imperial acre, is under ordinary circumstances, considered sufficient. They possess an advantage over the others in being easily transplanted, so that blanks in the rows either of the Swedes or other sorts (when they occur), are by this means filled up.

The varieties are as follows:

1. RED OR PURPLE-TOP YELLOW SWEDE.—Upper part of the root of a dull reddish colour; under yellowish. This is held in great esteem by the generality of cultivators. Of it there are several sub-varieties, which have been obtained by a repeated judicious selection of the roots from which the seed-stock has been saved, of these the next two may be mentioned.

2. BALLANTYNE'S NEW IMPROVED PURPLE-TOP.—So named from being brought into notice by Mr. Ballantyne, nursery and seedsman, Dalkeith. This is an improved stock of the last, and is more remarkable for its smallness of neck, uniform deep purple colour, and symmetry of shape and equality, than for the size of its roots.

3. COX'S NEW IMPERIAL.—This variety may be considered intermediate in colour between the purple and green-top sorts; its roots often acquire a large size, but are rather irregular, and of somewhat coarse-like quality. Such sub-varieties are frequently of short duration, being liable to degenerate when the careful selection of the roots to be grown for seed is not attended to, and they often only retain the name for such time as their seed-stocks are grown by the parties with whom they originated, and it occasionally happens that stocks procured in different parts by the same means, and known under different names, may yet be the same in other respects.

4. GREEN-TOP SWEDE.—Upper part of root dull green; under yellow. This variety is of longer standing than the purple-top, (No. 1), since the introduction of which less attention has been bestowed by cultivators, (in Scotland at least), towards procuring improved stocks of the green-top Swedes, which has on that account fallen somewhat in the estimation of growers. But when the same care is taken in selecting the roots grown for seed, the green-top may be considered as being equal in merit to the purple.

5. WHITE SWEDE.—Roots irregularly shaped, being often divided or branched, white under the surface of the ground, and greenish above.

The white Swede may be considered as the most inferior and unimproved variety; it is at present scarcely in cultivation, and when it appears amongst others, is considered as the effects of degeneracy, or as arising from a bad stock of seed. With the white Swede, the following gen-

erally admitted distinct species may, from its apparent unimportance be compared.*

6. BRASSICA OLERACEA RAPA, BRASSICA NAPO-BRASSICA, TURNIP ROOTED CABBAGE.—Continental writers seem generally to agree in recommending the cultivation of the turnip-rooted Cabbage, from its roots, in addition to their being naturally hardy, growing under or almost under the surface of the ground, whereby they are enabled to resist the severest winters; but it does not seem to deserve the attention of British agriculturists, as the Swedish turnip, which is evidently much superior, is sufficiently hardy to withstand the generality of the most rigorous winters to which this country is subjected; and as on these parts of the continent where the other is generally cultivated, the Swedish turnip has not yet, or is only recently fairly introduced, it is very probable that, when the superior merits of the latter become more fully known and appreciated, the culture of the turnip-rooted cabbage may by it be entirely superseded.

Several varieties of turnip-rooted cabbage which were grown in the nursery at Meadowbank, from seeds procured from various parts of the continent differed a little from the white, or what is generally termed a very bad Swedish turnip except in their leaves, which very much resembled those of some common varieties of kale.

II. BRASSICA RAPA, (var. common Turnip.)

The common turnip bears the same relation to the annual turnip rape, that the Swedish turnip does to the same rape.

The varieties of the common turnip are a great deal more numerous than those of the Swedish, compared with which they are also in general of much finer symmetry, as well as of a larger size, differences which may be partially accounted for from the common turnip having been longer in, and received a more extended cultivation. One circumstance however peculiar to the Swedes, is, that the larger the size to which they grow, a given weight of roots is found to contain a greater portion of nutritious matter, while the common turnips, on the contrary, after attaining to beyond a certain size, lose a proportionate quantity of that most valuable part of their composition, (see *Hortus Gramineus Woburnensis*), which circumstances tend to show the necessity for, and the advantages to be derived from, devoting more attention to the procuring of large and well-formed varieties of Swedes, and also to the procuring of hybrid varieties between the Swedes and common turnip, which may be found to combine the size of the latter, with the above-mentioned valuable properties peculiar to the Swedes. Common turnips are divided into two important classes, viz.: the white and the yellow rooted.—The former, comprehending those which are most tender, and arrive soonest at maturity, and which are best fitted for using during the earlier

* A variety of Swede which was introduced a few years since to England from Sweden by Mr. Hillyard, to which he has given the name of Thorpland Swede, is said to be superior to any of the above, but as neither seeds nor roots have as yet been obtained for the Museum, an opportunity has not been afforded of comparing this sort with the others.

part of the season; and the latter, with very trifling exception, such as, from their hardness, and period of arriving at perfection, are intermediate between the white sorts and the Swedes. The period of sowing common turnip should be regulated according to the length of time that the variety to be grown requires to arrive at maturity; for when allowed to remain on the ground in what may be termed growing weather, or before winter sets in, after they attain to full size, they become soft, spongy, and inferior in quality; a general rule, however, is to commence sowing the yellow sorts about a fortnight after the Swedes, or about the beginning of June, and to follow with the white sorts from the middle till towards the end of that month. The same quantity or seed will suffice as in the case of the Swedes, (2 to 2½ lbs. per imp. acre), under ordinary circumstances, but some cultivators recommend sowing about ½ lb. more, to provide against the attacks of the turnip-fly, and other casualties, to which they are more liable than the others, while at the same time the advantage of filling up the blanks by transplanting, is in the case of common turnips scarcely practicable.

* *Yellow turnips, varieties of Brassica Rapa, which are more particularly suited for field culture. Those marked thus (*) are also grown as garden turnips for the table.*

7. DALE'S, or DALE'S HYBRID TURNIP.—From the circumstance of this variety being a small or hybrid between the green top Swede and white globe, procured by repeated impregnations, it may be presumed that it might with equal propriety have been included amongst the varieties of *Brassica campestris ruta бага*, or Swedish turnip. It, however, bears a much greater affinity to those of *B. rapa*, inasmuch as its leaves are also rough and of a vivid green (not glaucous) colour, and in its roots, being somewhat similar in form and texture. It has received the name of Dale's Hybrid, from being first brought into notice by Mr. Robert Dale, an intelligent farmer at Libberton West Mines, near Edinburgh, who having in 1822 and 1823, received a few ounces of seed of a new hybrid variety of turnip from the late James Shireff, Esq. of Bastleidge, Berwickshire, sowed the same, the produce he found very much to resemble the Swedish in shape, and from which by repeated selection and impregnation, he at length obtained this esteemed variety, the distinguishing characteristics of which are,—foliage strong and luxuriant; roots of a large size, oblong shape, and of a lightish yellow colour, with light green top, having also a small neck and small root. The shape of the root, however, although generally oblong, is rather apt to vary being sometimes almost globular, but its more material characteristics of large size and luxuriance of growth are uniformly the same.—Compared with any other of the common yellow field sorts, it is found to arrive sooner at maturity, and consequently may be sown at a later period of the season; while at the same time it is equally hardy, or at least has been found sufficiently so to withstand the severest winters which have occurred since its introduction.

8. NEW PURPLE-TOP HYBRID TURNIP.—In its general appearance this variety seems nearer in relation to the Swede than Dale's Hybrid; like it,

however, it has the rough vivid green root foliage by which the varieties of *B. rapa*, are so easily distinguished. Judging from specimens of roots sent to the Museum by Andrew Longmore, Esq. Ratter, and which were raised by him from seed grown by Grant Duff, Esq. of Eden, Banff, this seems likely to become a very useful turnip for using in the spring months. Most of these roots were of a slightly oblong shape, of a greenish-purple colour on the top, and light yellow or almost white on the under surface. They were all remarkably firm in texture, and rather late in beginning to shoot.

9. LARGE LAURENCEKIRK YELLOW TANKARD.*—So named from having been originally selected and brought into the notice of cultivators by Mr. Robert Scott, Laurencekirk. At first sight this may be mistaken for Dale's Hybrid, like which it grows a good deal out of the ground, but is distinguished by its more oblong and more uniformly shaped roots. It is a valuable acquisition, being also like that variety, early in arriving at maturity, but generally considered rather less hardy, and like it also yields a bulky crop.

10. LONG CAMBRIDGESHIRE YELLOW TANKARD.—This variety, which is scarcely known in Scotland, is grown to a pretty considerable extent in Cambridgeshire and Suffolk, where it is also sometimes known by the name of Pudding Swede, which name it seems to have acquired more on account of its hardness of texture, than from any other resemblance which it bears to any of the true Swedish turnips. Its roots are much longer in shape than those of any other yellow field turnip, of a lightish yellow colour with green top, and in general grow, more than half under ground.

11. PURPLE-TOP YELLOW TANKARD.—Root bright yellow, with purple top, of a somewhat irregular long or tankard shape. This variety was formerly grown in some districts chiefly in England, but is now nearly out of cultivation; nor does it seem entitled to any particular share of attention, being altogether a coarse-like inferior sort, and not capable of yielding near such a bulky crop as either of the three last.

12. COMMON OR OLD RED, or PURPLE-TOP YELLOW BULLOCK, PURPLE-TOP ABERDEEN.—Leaves comparatively short spreading, of a dark colour, and collected into a small neck at their base; root globular or somewhat flattened, of a reddish purple colour above, and deep yellow under the surface of the ground, of medium size; tap-root very small. This is an old and very deservedly esteemed variety, and of those commonly cultivated is considered by some to come nearest the Swedes in hardness and solidity of texture.

13. BERWICKSHIRE BROAD IMPERIAL PURPLE TOP YELLOW.—This may be considered as a superior or improved variety of the last, was first introduced by Mr. R. Hogg, nursery and seedsman, Duns, Berwickshire; its principle distin-

* Tankard is a name applied to such common field turnips as are of an oblong shape, and the roots of which in general grow a good deal above the surface of the ground. Such oblong varieties, however, as approach nearest to a round or globular form are sometimes termed decanter, or decanter-shaped turnips.

guishing characters are, roots somewhat large, flesh and under part of the skin deep yellow, and top of a bright red or purple colour, firmer in texture and harder than the last.

14. SKIRVING'S IMPERIAL PURPLE-TOP YELLOW.—This is also an improved variety of the old purple-top yellow bullock, and grown to a considerable extent in some of the north-west districts of England. It acquires its name from first being brought in notice by Mr. Wm. Skirving, nursery and seedsman, Liverpool.

15. YELLOW ABERDEEN BULLOCK, OR GREEN TOP YELLOW BULLOCK.—In the size and shape of its roots, this old and deservedly esteemed sort resembles the Purple-top yellow Bullock, (No. 12), but differs in the color of its tops, which is bright green.

16. OLD SCOTCH YELLOW.—In size and quality is about equal to the last variety, but its roots are considerably more flattened, and grow deeper and seem more buried in the ground, and have, from that circumstance, a smaller proportion of green coloured top, which is also a lighter shade.

17. HOOD'S NEW LARGE YELLOW, is a very superior large globular shaped hardy turnip, remarkably perfect in symmetry, and has rather a lightish green-top. Introduced by Charles Hood, Esq., an eminent farmer at Inverbrood, Southlandshire, a gentleman who has devoted much attention to the culture and improvement of field turnips generally.

(To be continued.)

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The increased desire and spirit exhibited the last season to cultivate Flowers and other ornamental plants, has induced us to obtain from Holland an assortment of Tulips, Hyacinths, and other Bulbous Flower Roots.

Those now on hand are just received, and are particularly large, strong and of the finest kinds. They consist of the following, viz.

- 150 sorts double and single Hyacinths
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Also, Gladiolus or Sword Lily, Iris, Arum Dracunculus or Dragon Plant, Anemone, Snow Drops, &c. &c.—And early next spring we will offer for sale a superb collection of Double Dahlias, consisting of 200 named sorts, inferior to none in this country. Also, Jacobian Lily Roots, double Tuberose, Tyger Flour and other delicate Bulbs.

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A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oct

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Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	
CATTLE, on the hoof,	100lbs.		7 50
CORN, yellow,	bushel.	80	85
White,	"	75	78
COTTON, Virginia,	pound.		
North Carolina,	"		
Upland,	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,	pound.	50	
FLAXSEED,	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 50	13 00
Do. do. baker's,	"		
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	
" wagon price,	"	10 25	
City Mills, super,	"	10 00	10 25
Do extra,	"	10 25	10 50
Susquehanna,	"		10 50
Rye,	"	7 00	7 50
Kiln-dried Meal, in hhds.	hhd.		21 00
do. in bbls.	bbl.		4 62
GRASS SEEDS, red Clover,	bushel.	7 00	8 00
Timothy (herds of the north)	"	3 25	3 75
Orchard,	"		2 75
Tall meadow Oat,	"		2 75
Herds, or red top,	"		1 25
HAY, in bulk,	ton.		20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 50	8 50
Slaughtered,	"		
HOPS—first sort,	pound.	16	
second,	"	14	
refuse,	"	12	
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	45	46
PEAS, red eye,	bushel.		
Black eye,	"	1 12	
Lady,	"		
PLASTER PARIS, in the stone,	ton.	4 25	
Ground,	barrel.	1 50	
PALMA CHRISTA BEAN,	bushel.		
RAGS,	pound.	3	4
RYE,	bushel.		125
Susquehanna,	"		
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"		
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"		
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.		2 25
Red, best,	"	2 00	2 05
inferior,	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	
To Wheeling,	"	2 00	
Wool, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45 50	28 30
Three fourths Merino,	"	42 45	26 28
One half do.	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.		
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders, do.	"		15
Middlings, do.	"		15
Assorted, country,	"		14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	1 87	1 94
CHOP RYE,	"		2 25
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.		
No. 2,	"		
Herrings, salted, No. 1,	"	3 50	
Mackerel, No. 1, —...—No. 2	"	9 50	10 50
No. 3,	"		6 75
Cod, salted,	cwt.		
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	par
Branch at Baltimore,	do
Other Branches,	do
MARYLAND.	
Banks in Baltimore, par	
Hagerstown, ..	3/4
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd, do	
Do. payable at Easton, ... do	
Salisbury, 5 per ct. dis.	
Cumberland,	1
Millington,	do
DISTRICT.	
Washington, ..	3/4
Georgetown, } Banks, 3/4.	
Alexandria, ..	3/4
PENNSYLVANIA.	
Philadelphia,	3/4
Chambersburg,	1
Gettysburg,	1 1/2
Pittsburg,	2 1/2
York,	1 1/2
Other Pennsylvania Bks. 1 1/2	
Delaware [under \$5], 3/4	
Do. [over 5],	1 1/2
Michigan Banks,	3/4
Canadian do.	6

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds. Price—per copy, 50 cents.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do 90	

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,

Balt., Dec. 13.

Editor Farmer & Gardener.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 35.

BALTIMORE, MD. DECEMBER 27, 1836.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, DEC. 27, 1836.

NEWLY INVENTED AGRICULTURAL MACHINERY.

In looking over the account of the stated half yearly general meeting of the "Highland and Agricultural Society of Scotland" as published in the Farmer's (London) Magazine, for August 1836, we find the following brief notices of several newly invented agricultural implements. These notices were made by Professor Low.

1. An elegant model of a machine for compressing peat, transmitted by Lord Willoughby de Eresby, and made after a design by his lordship.

2. A machine by Mr. Leckie, of Huddington, which is termed a *Seed-Sifter*. In this machine Mr. Leckie had the merit of applying a known principle to a new purpose. It consists of a series of horizontal sieves of fine wire, moved by cranks, and is designed to clean the seeds of the smaller grasses more perfectly than is effected by the common fanners. This instrument had been used with success.

3. A *chain plough*, invented by a Mr. Maule. The improvement consists in the application of a chain to the posterior part of the beam of the common plough, the conducting it through a ring to the end of the beam, and attaching to it the point of draught. The effect of this mode of attachment is to give steadiness to the action of the plough on principles which can be easily explained.

TURNIP FLY.

At the monthly meeting of the Zoological Society, held in London on the 30th of June last, a very interesting paper was read by Mr. Yarrell, on the economy of an insect destructive to turnips. The following sketch of its contents, which

we have no doubt will be found interesting to the readers of the Farmer and Gardener, we copy, substantially, from the Farmer's (London) Magazine.

In June of last year the *yellow fly* was seen upon the young turnips. It was remembered by some farmers that this was the fly which prevailed in 1818, and which was followed by the caterpillars known by the name of the *blacks*. The eggs being deposited by the perfect insect in the leaf of the plant, the black caterpillar, or turnip-pest, speedily makes its appearance, feeding on the soft portions of the leaves of the turnips, and leaving the fibres untouched; and, finally, casting its black skin, and assuming one of a more slaty or grey color, it buries itself in the earth. Lodged there, it forms for itself, from the soil, a strong oval cocoon; from which some of the earlier broods pass almost immediately into the perfect state, filled with *ova*, and ready quickly to supply another generation of destroyers. So complete and rapid was the destruction in some instances in July 1835, that a whole field was found, in two or three days, to present only an assemblage of skeletonized leaves, and this too, when the turnips had obtained a considerable size.

The insect, whose proceedings have been thus briefly noticed, belongs to the *Hymenopterous* family *Tenthredinidæ*: it is the *Athalia Centifolia*, a species first noticed by Panzer. By their repeated broods the devastation was continued for so long a time, that even the third sowing did not, in all cases, escape destruction: the turnip became pithy and of little value, and it was necessary to import the root largely from the continent to supply the deficiency of the home crop in Britain.

The remedial measures adopted on a former visitation were, 1st—the turning into the infested fields of a large number of ducks, which greedily devoured the caterpillars as they were brushed from the leaves by a boy with a long pole—2dly, the passing of a heavy roller over the ground at night, when the caterpillars were at their feed, and—3dly—the strewing of quick lime by broadcast over the fields, renewing it as often as it was dispersed by the wind. The latter mode was generally considered as the most effectual preservative.

MR. HUNTINGTON'S DEFENCE.

We have received the above article, and regret that the previous occupation of our columns preclude its insertion this week. Mr. Huntington, our readers will recollect is the agent of Mr. Whitmarsh for the sale of his Chinese mulberry seed, and we take pleasure in saying that he has completely exonerated himself. We shall insert his defence next week.

TRIFOLIUM INCARNATUM.

This fine variety of clover appears to be attracting much deserved attention in England, and many experiments are being made with respect to the proper mode of cultivating it. The plan pursued there by many persons of setting it on ploughed land seems to be giving way to a more certain and practicable mode of culture. A writer in the Farmer's Magazine, who signs himself "A Constant reader" gives the result of a series of experiments which he had made, that, so far as they go, would establish the fact that, to ensure success to a crop of this luxuriant and nutritious grass it is necessary it should either be sown stubble or grass-sward. He remarks that in September, 1834, he sowed three small pieces of light land: one of which he mowed green for horses and never had the same quantity per acre of either tares or lucerne: that all kinds of stock are fond of it, and thrive astonishingly upon it: another piece was mown for stock and made the best of hay—the third piece stood for seed, and produced about twelve bushels per acre.

In September, 1835, he sowed two pieces of wheat stubble, where the *clover layer* had entirely failed before the wheat crop, and a piece of barley stubble which had also tired of clover, and succeeded in obtaining a good plant upon each.

His mode of culture is—first, to use a *large* harrow to raise a mould; then to level it with *small* harrows twice over, and finish with a heavy two-horse roller, as the land cannot be made too solid.

He ploughed two other pieces, having hog grass upon them and then sowed his seed,—and in both instances the *Trifolium* entirely failed. Many similar experiments, made by his neighbors, resulted also as did his own: he therefore, con-

cludes that, by raising a mould *without ploughing*, and by sowing *trifolium* in August, or September, a good plant of the best food that can be given to stock may be obtained without risk of failure.

He recommends 10 quarts of seed per acre.

MANAGEMENT OF COWS.

We have heretofore stated that every thing depends on the management of a cow with her first calf, whether she prove a good or bad milker, and therefore insert with the more pleasure the following corroborative testimony, as it comes from a gentleman of experience and sound practical judgment.

ON THE MANAGEMENT OF COWS.

BY RUSSEL WOODWARD.

Having formerly kept a large number of cows, I observed many among them that had dried up their milk so early in the fall, that they were not profitable, while others, with the same keeping, gave milk in plenty until late in the season. I likewise have often heard my neighbors observe, that some of their cows, though very good in the fore part of the season, dried up their milk so early, that they were unprofitable, and they should have to put them off; I accordingly thought it expedient to find out the cause, if possible; and when I brought to mind the way that some of my young cows had been kept and milked, I attributed the cause to the milking of them the first season they gave milk; they may be made, with careful milking and good keeping, to give milk almost any length of time required, say from the first of May to the first of February following, and will give milk late always after, with careful milking. But if they are left to dry up their milk early in the fall, they will be sure to dry up their milk each succeeding year, if they have a calf near the same season of the year, and nothing but extraordinary keeping will prevent it, and that but for a short time. I have had them dried up of their milk in August, and could not by any means make them give milk much past that time in any preceding year. I had two heifers, which had calves in April, and after getting them gentle, I set a boy to milk them for the season, (which is often done the first season, on account of their having small teats;) he was careless, and dried them both up in August. Although I felt satisfied I should lose the greater part of the profit on them afterwards, yet I took it on me the following year to milk them myself, and give them good feed, but to no purpose, I could not make them give milk for a longer time than they had dried the year before. I have two cows now that were milked the first year they had calves, until near the time of their calving again, and have continued to give milk late ever since, if we milk them.

Stone Cutter.—A Mr. Pitts, of Maine, has invented a machine for hammering and dressing stone, which does the work as neatly as the most expert artist could do it. It may be moved by water, steam or horse power, and with one horse

will accomplish the work of some dozens of men.

New Bee Hive.—An inhabitant of Connecticut, Mr. Judd, has invented a contrivance by means of which bees are made to build their cells and deposit their honey in the chamber of a dwelling house in neat little drawers from which it may be taken fresh by the owner, without killing the insect. The *Norwalk Gazette* describes it as follows:—

"The hive has the appearance of, and is in part, a mahogany bureau or sideboard, with drawers above and a closet below, with glass doors.—This case or bureau is designed to be placed in a chamber of the house, or any other suitable building, and connected with the open air or outside of the house by a tube passing through the wall. The bees work and deposit their honey in drawers. When these or any of them are full, or it is desired to obtain honey, one or more of them may be taken out, the bees allowed to escape into the other part of the hive, and the honey taken away."

The glass doors allow the working of the bees to be observed; and it is added that spaciousness, cleanliness, and even the temperature of the habitations provided for them in this manner, render them the more industrious.

REMEDY FOR FLIES ON SHEEP.

Hog's lard or soft grease 2 lbs.

Flour of Sulphur, 1

Oil of Amber, ½ pint.

Mix the whole into an ointment, and rub as much as would make a ball the size of a walnut, and smear it on each sheep, either with the hand or a common brush. If the oil of amber cannot readily be procured, common tar, oil of tar, or coal tar, may be substituted for it.

PREMIUM COTTON.

There were, we understand, eighteen or nineteen loads exhibited at the warehouse of Messrs. Rees & Beall, on Saturday last, for the premiums advertised to be given on that day by those gentlemen. Samples were taken from separate bales in each load, and tied up in a piece of blue paper, and then labelled No. 1, 2, &c. In this condition the samples were handed to the following gentlemen, who were appointed judges, viz: Messrs. Amory Sibley, E. Thomas, E. Manton, and Jonathan Meigs. The Judges retired, and after being absent about an half hour, returned and reported as their decision, that, No. 4 was entitled to the first premium of \$75; No. 5 to the second, of \$50; and No. 11 to the third, of \$25. No. four was from the Milwood plantation of J. Edward Calhoun, Esq. in Abbeville District, So. Ca. and the eight bales were put up at auction, and sold for 18 cents to A. Sibley, Esq. No. 5 was from the plantation of John Spears, Esq. Abbeville District, So. Ca. and was sold at auction to the same gentleman for 17 cents. No. 11, was from the plantation of John Whitehead, Esq. Burke county, and was sold to the same gentleman for 16½ cents. The cotton of Mr. Calhoun, was from the same parcel noticed in our paper a few days since, and as an act worthy of the man, we

take pleasure in recording that his instructions to his agent in this city was, should his cotton command the highest premium, that the same should be handed over to the Trustees of our Free School.—*Augusta (Geo.) Constitutionalist*, of December 6.

The subjoined well timed and judicious remarks, we copy from the *Baltimore American*, and commend them to the notice of our agricultural friends and readers.

The farming interests are all concerned in the retention of the duty on wheat, and we trust that the failure of the late wheat crop may not be used as a pretext to visit injury upon the farmers of our country, who are already labouring under the unavoidable evil of short crops. Than the culture of wheat there is no other crop in the whole system of husbandry so precarious and uncertain, and which pays worse for the toil and labour bestowed upon it, and we can see no just reason, growing out of the present scarcity, why the little protection now offered by government, should be withdrawn from a people so well entitled to favour as are those, who form the great body of American agriculturists.

The failure of the wheat crop in this country has produced a state of things unprecedented in its history. It is stated that seven hundred and fifty thousand bushels of wheat have been imported into New York during the last autumn, the entire stock of which is already exhausted. Were it not for the quantity of Western flour in that city, supposed to be about 150,000 barrels, its predicament would be awkward indeed, the canal navigation being closed and that of the river nearly so. A curious fact came to our knowledge a short time since in connection with this subject, which we intended to have mentioned before but omitted to do so. A farmer from York county, Pa., one of the finest wheat districts in the world, came to Baltimore to purchase foreign wheat to carry home with him, for the purpose of grinding it into flour for the use of himself and neighbors. Another equally remarkable instance of the same character is the purchase of about six thousand bushels of German wheat in this market, by a miller of the fertile county of Frederick, to supply the wants of his neighborhood with flour.

Whilst we are on this subject, it may not be improper to take a passing notice of the efforts made at present to procure a reduction of the duty on foreign wheat. To be convinced of the impolicy of such a reduction, it will we think only be necessary to reflect for an instant on the causes which have led to the existing demand for breadstuffs, the growth of other countries. During the present year there has been not merely a shortness of yield, but almost a total failure of the crop of wheat throughout the Union. Although for a long time hopes were entertained that in the West and North the product would be such as to make up for the want of crops in other quarters, experience has unfortunately proved

that these expectations were illusory, and that in the fertile regions alluded to the results has not been any thing near an average crop.—Thus without any cause subject to human control, or any change in the system of agriculture, the peculiarity of the season has rendered the importation of foreign wheat indispensable. Such being the case, the question arises whether the duty should under the circumstances be taken off. In our opinion, the measure would be fraught with mischief to the agricultural interests at large, and particularly to those residing in the wheat growing States on the Atlantic board. Nor would the mischief be of a temporary character—its effects would be permanently injurious.

There is perhaps no product of our soil which on an average makes so poor a return to the cultivator at the prices for which it is sold, as wheat. Even with the protecting duty of twenty five cts. per bushel, we have seen the article selling for years at an average of about a dollar or a little more, a price barely sufficient to afford the farmer a living profit when the expenses of labor, the moderate yield per acre, and other matters are taken into the account. When, therefore, the profit is so small, with the protecting duty, which of course in ordinary years excludes foreign competition, what would be the case if it were taken off.—The fertility of their soil, the thorough cultivation, and the cheapness of labor, owing to the density of population in Europe, enable the inhabitants to cultivate wheat profitably at a price much lower than can be done here, and it can oftentimes be sent advantageously to this country at a cost, including all charges, much less than that for which we can raise it.

The consequence of taking off the duty would therefore be to reduce the value of the crop so much that it would no longer be worth the culture, and farmers would be forced to have recourse to something else for their support, and thus in the course of a short time should we be dependent on foreign nations for the staff of life. Admitting, however, for a moment, that the fertility of our western lands would enable those who cultivate them to contend successfully with the foreign farmer, by making up in quantity of yield for the smallness of the price, what would be the effect upon the older wheat growing States? It would be to drive to the West our farmers whose lands here would become valueless, and oblige them to seek elsewhere the means of support denied to them in the Atlantic States.

That the effects here mentioned must necessarily arise from the proposed measure, cannot, we think, be denied, and we hope most sincerely that our law makers will reflect seriously before they make a change, that will probably be detrimental to the agricultural interest of the country at large, and absolutely ruinous to that of those states where continued cultivation has exhausted the soil.

[From the London Sporting Magazine.]

CARRIER PIGEONS.

In the course of a lecture delivered by Mr. Mayo on the evening of the 20th of May, at the Royal Institution, on "Sensation," when speaking of "instinct," he mentioned the following facts respecting the training and powers of the carrier pigeon, which he had obtained from a practical

person. They prove, that the carrier pigeon sees its way home, retracing its path in part by recollection of its several stages, in part by recollection of visual direction.

Carrier pigeons, of which the Dutch is the best breed, are thus trained: at eight or ten weeks of age they begin to run, or to make flights of from four to five hours from the nest. They are then strong enough on the wing to commence their education. The pigeon to be trained is first taken no greater distance than a mile from home, and tossed into the air; when after flying round and round, and rising some height in the air, it wings its way back. This lesson is repeated, five or six times in as many days. The bird is next carried to a distance of two miles and tossed. This lesson is repeated twice.—The bird is next carried three miles, and tossed; and this lesson is likewise repeated two or three times. The bird is then carried six miles, and then twelve, then twenty-four, then forty-eight, then ninety-six, and so on, in a geometrical ratio. Each of these lessons is given once only. The longest flight that a carrier pigeon has been known to make is eight hundred miles. In so long a flight the bird is supposed to pitch at night, and roost, renewing its flight the following day.

When a trained carrier pigeon is tossed, after making one or more circles, it rises in a rapid spiral to an enormous height, before it takes its departure, and at that height it is supposed to make its journey. The speed of the Antwerp birds, which are lighter and more finely made than the English breed, is supposed to be a mile a minute. They are more extensively used than is supposed in financial transactions; one eminent speculator at Antwerp keeps 1206 pigeons. The value of a pair of well trained Dutch birds is 5*l*.

The feats of these birds, when they are used for moderate distances, are seemingly effected directly through vision: the birds see their way. They rise sufficiently high to command a view of distant known objects, which their fine sight enables them to recognize at immense distances. If their sight is baffled, they lose their way; so, if they set off in foggy weather, they are sometimes two, three, or four days, or a week, in making a passage which would otherwise occupy a few hours only; and sometimes, under these circumstances, they never reach home.

It is evident that at greater distances (on the rule of training described already) there must be something more than direct vision to guide them; they must rely upon recollected direction, as well as upon the sight of recollected objects; or they must employ some general ideas of direction, in which, perhaps, the position of the sun may help them, in addition to the sight of known terrestrial objects.

On the 20th of May, a gentleman of the name of Chitendon, shot a very fine Carrier Pigeon, which had settled on Brook Church, near Wye. The bird had a label attached to it by a piece of fine wire, and was evidently on its passage from some part of the Continent to London. There were various private marks on the label, unintelligible, of course, except to the parties in communication, but the following words were

easily deciphered:—"J'ai reccu 12 pigeons hier, ils ont reste a Ostende Jeudi. J'espere que vous vous portez bien." No. 3, and an eagle's head, were also marked on one of the tail feathers.

BRASSICA CAMPESTRIS RUTA BAGA.

(RUTA BAGA OR SWEDISH TURNIP.)

Concluded.

18. GORDON'S YELLOW, is a name under which a very superior variety is known in some of the north-eastern districts of Scotland, and in Aberdeenshire. It is of a rather oblong shape, deep green color on the top, generally very slightly tinged with red, and appears about equal in merit to the last.

19. *ALTRINGHAM YELLOW.—Compared with the generality of yellow field turnips, this is rather under the medium size, the root, however, is of a fine globular shape, and possessed of considerable solidity, with a light greenish top, very small neck, and tap root.

20. JONES' YELLOW.—This variety originated in the neighbourhood of Stirling, where it is still cultivated to some extent; it bears a considerable resemblance to the last, but grows to a larger size, and the yellow colour both of the skin and the flesh is deeper.

21. *YELLOW GLOBE.—Roots of medium size; globular, and always nearly under the surface of the ground; top greenish, leaves rather small and spreading. This is a superior turnip both for field and garden culture.

22. *YELLOW STONE.—This variety differs from the last in growing more out of the ground, and having a greener top; in other respects they are pretty similar. As a garden turnip this is one of the most esteemed sort.

*** Yellow sorts more particularly suited for garden culture.*

23. YELLOW MALTA, OR MALTESE GOLDEN TURNIP.—Roots very small, slightly flattened above, and concave or much hollowed on the under side towards the tap-root, which, as well as the neck, is remarkably small, skin very smooth, and of a bright orange yellow colour; leaves also very small. For summer and autumn crops this is the most esteemed of all the yellows, but is rather tender and incapable of withstanding frost.

24. YELLOW PRESTON, OR LIVERPOOL YELLOW.—This is also an early sort, and bears a considerable resemblance to the last, but grows to a larger size, has longer foliage, and is less hollowed towards the tap-root.

25. YELLOW DUTCH.—Roots small and globular of a pale yellow colour throughout, or very slightly tinged with green on the top, particularly when much exposed to the sun and weather; this is a much esteemed early sort, being of excellent flavour, and very well adapted for using in summer and autumn.

26. LARGE LONG GARDEN YELLOW.—Roots about one-fourth part above the ground, which is of a greener colour, while that below the surface is a deep yellow. This is a hardy and rather superior sort, hitherto little known in this country, but grown pretty extensively on the Continent.

27. **SMALL LONG YELLOW, *Le Navet de Mauv Jaune, (Fr.)***—Leaves very small and spreading; roots generally entirely under ground, small, and of an oblong or a carrot shape, terminating abruptly at the point; colour light yellow. At present this variety is little known in Britain. About a century ago, however, either it or the white, (No. 45) was more in esteem; they are both of excellent flavour, and grown to considerable extent in some parts of the Continent, particularly in France and Holland, from whence they used to be imported for the London market; their under ground habit of growth protects them in a great measure from the frost, and they succeed best on sandy soils.

*** *White varieties adapted to Field culture.*

28. **LAWTON HYBRID.**—This variety, which was raised by James Wright, Esq. of Lawton, Strathmore, may be considered as bearing the same relation to the Swede as *Dale's Hybrid*, (No. 7.) Its leaves are darkish green, rather small smoothish; roots roundish, or somewhat heart-shaped, being often tapered on the under side; white below, and green above the surface of the ground. They are possessed of more solidity and firmness of texture, than most of the white sorts. From its being first brought into notice so lately as 1834, a more extensive cultivation is yet necessary before any thing definite can be said of its merits.

29. **LEWISHAM GREEN-TOP OX HEART.**—This is an excellent variety, grown in some of the southern districts of England and Scotland, has acquired this name from being first introduced by Messrs. Willmott & Co., Seedsmen, Lewisham; in colour and shape it very much resembles the Lawton Hybrid, but is somewhat softer in texture, and has larger and lighter green coloured leaves.

30. **GREEN GLOBE, OR GREEN-TOP WHITE GLOBE.**—Roots of a fine globular shape, with a small neck and tap-root; very white under and green above the surface of the ground; of medium size, hardy, and firm in texture, but scarcely so much so as the green round, (No. 36,) than which it arrives at maturity rather earlier. A very fine sub-variety of this is known in some parts, under the name of *Hungarian green-top Globe*; it is larger and softer than the common sort; also of a fine regular shape, and was first introduced by Adam Ferguson, Esq., of Woodhill, who received its seeds from Hungary.

31. **WHITE GLOBE COMMON WHITE GLOBE.**—Roots globular; skin smooth and perfectly white; neck and tap-root small. Although the above description embraces the principal characters of the white globe turnip, yet there is a considerable variety in those to which this name is applied, rising from the degrees of attention bestowed by growers in selecting their seed roots; and the shape is often not a little effected by the kind and state of the soil in which they are grown. Thus globes of any kind, and particularly the variety here mentioned, when grown on a very superior rich soil may be said to be forced beyond their natural size, and thereby acquire somewhat of a monstrous or over-grown appearance, losing in a great measure their natural symmetry of shape.

32. **POMERANIAN GLOBE.**—This variety was

introduced some years since from Pomerania, and may be considered the most perfect globe turnip in shape, as well as the most regular or uniform grower. Its skin is of a smooth and white and somewhat shining or transparent-like appearance, leaves smoothish, of a dark green colour, with whitish leaves. In the Perthshire Agricultural Report for October, 1834, the Pomeranian globe is mentioned as being less affected by mildew than most others, a disease which was very prevalent in some districts that season. A rather small variety, but in other respects resembling the Pomeranian, is known in some places under the name of *Chrystal Globe*.

33. **STONE GLOBE.**—This is considered as being the hardest of all the entire white globe turnips. It grows naturally deeper in the soil than the others, and has stronger, darker green foliage.

34. **RED GLOBE.**—Roots medium sized, globular shaped, and firm in texture. This is an old, and in some districts pretty extensively cultivated variety. It is medium early, and generally allowed to be particularly well suited for light soils, and exposed elevated situations.

35. **AUTUMN STUBBLE, OR SIX WEEKS TURNIP.**—Roots much above ground; rather large, of an irregular globular shape, or in form somewhat between the White Globe, (No. 31) and White Norfolk, (No. 37), and rather soft. This sort arrives sooner at maturity than any of the others, the Tankard Turnips (Nos. 39, 40, 41,) excepted, and from its natural softness of texture should always be sown late, and used before the severe frosts set in. As descriptive of its earliness, it has received the above names, it being suited for sowing in early situations in autumn after the corn crop has been removed, and is also valuable for making up blanks in turnip fields, where the first sowing may have partially failed.

36. **GREEN NORFOLK,* GREEN ROUND OR COMMON GREEN-TOP WHITE.**—The Norfolk turnips are all of a peculiar flattish shape, rather hollowed towards their neck, as also on their under side, and when grown to large size they become more or less of an irregular round or cornered shape.

The green top variety possesses these characters in a less degree than the next; and is generally of a pretty regular round shape, flattened, but not much hollowed on the upper and under surface; the former of which is of a green colour and the latter white. It is also hardier than the next two.

37. **WHITE NORFOLK, OR WHITE ROUND.**—This is the largest rooted variety of Norfolk, and at the same time softest and most irregular in shape. It is generally hollowed towards the neck, and being so, it is apt to be injured by re-

* Norfolk being the county into which the culture of field turnips was first introduced, the original and consequently unimproved sorts, when grown in other places were known by the name of Norfolk Turnips. This name is still retained and applied to a class of turnips which as far as regards symmetry of shape, are to be considered inferior, and apparently only slightly improved from the first cultivated varieties. The name has no reference to the sorts at present cultivated in Norfolk, which are at least equal to those in any other district of Britain.

taining moisture, which renders it unfit for using except in the beginning of the winter seasons.

38. **RED NORFOLK.**—In size this sort is inferior to the last, but rather firmer in texture, and more regular in shape. It should also be used in the early part of the season, and is at once distinguished from all the other round flattened varieties by its bright reddish top, and from the red globe (No. 34) by its flat shape.

39. **GREEN TANKARD.**—Roots more than half above ground; oblong or tankard shaped; of a greenish colour, except on the under surface, which is white.

The Tankards, like the Norfolks, are unsuitable for winter feeding, not so much on account of their softness as from their standing mostly above ground, and being thereby much exposed to frost. They are also generally earlier in arriving at maturity than the others.

40. **WHITE TANKARD.**—Roots longer, and in general larger, also softer in texture than those of the green tankard; often bent or crooked; leaves large and luxuriant; the earliest maturing of any, but will not stand the frost.

41. **RED TANKARD.**—In size, shape, and texture, this variety may be considered as occupying an intermediate place between the green and white tankard. It is of a bright red colour on the upper surface, and white on the under.

**** *White sorts more particularly suited for garden culture.*

42. **WHITE DUTCH.**—This is the most esteemed sort for early crops. It is juicy and of excellent quality when young, but soft, spongy, and inferior when full grown at which period it becomes of an irregular round and much flattened shape. Its culture in the field has been recommended when late sowing is necessary, but in such a case the autumn or six weeks, (No. 35) and the tankards, (Nos. 39, 40, 41,) are decidedly preferable.

43. **RED DUTCH, OR EARLY GARDEN RED.**—The roots of this are very similar in shape to those of the last variety, but differ in colour, being bright red above ground, and also in having smaller and darker foliage. This is a very excellent variety, but little known in this country.

44. **WHITE GARDEN, OR EARLY STONE TURNIP.**—This is a common and well known garden turnip, of a round shape, firmer texture, with stronger foliage than the white Dutch, it is not, however, so well adapted for early spring sowing, being more apt to run to seed, and has acquired the name of Early from the circumstance of its arriving sooner at maturity when sown at a later period of the season. A carefully selected and improved variety of this is known in some parts of England by the name of Mouse-tail turnip.

45. **SMALL LONG WHITE, *Le Navet Meaur Blanch, Fr.***—This variety differs from the small long yellow, (No. 27) in little except in colour.

46. **SMALL VERY LONG, OR MALTESE LONG WHITE, *Le Navet de Clair Fontain, Fr.***—This differs from the preceding in being generally partly above ground, which part is of a greenish colour; also much longer and tapering more gradually towards the point.

**** *Sorts not included in any of the preceding divisions.*

47. **ROUND BLACK TURNIP.**—Leaves small,

few and smoothish; roots almost or altogether under ground, of an irregular roundish shape, often divided or terminating in thick branches at its lower extremity; skins very rough and of a black colour; flesh white. This and the next three sorts have a hottish somewhat radish-like taste, for which they are esteemed and cultivated in some parts of the Continent.

48. **ROUND BROWN TURNIP.**—This differs from the last in little except in colour, which is dull brown or earthy-like.

49. **LONG BLACK TURNIP.**—This differs from the round black, (No. 47) in little except the form of its roots, which is of a long carrot-shape, and also mostly under ground.

50. **LONG BROWN TURNIP.**—This variety bears the same relation to the round brown, as the last does to the round black turnip.

51. **SMALL BERLIN, OR TELTAN TURNIP.**—This is remarkable as being the smallest of all the turnips. It is of an oblong or carrot-shape, about three inches in length, and at the thickest part seldom above an inch in diameter; of a dull transparent like white, or very light lead colour, and is possessed of a peculiar slightly hot taste.

[From the Dumfries Herald.]

IMPROVEMENT OF THE BREED OF SHEEP.

[Continued.]

This may be rendered plain by a sketch of what has occurred in Galloway, within the limits of our traditionary writings, which are, unluckily, "few and far between." (Consult Chalmers' Caledonia.)

The native sheep of the Highlands of that district is supposed to have been a small handsome white-faced breed, at least so thinks John McLellan, who wrote an account of Galloway in 1650, from the wool being much praised and eagerly bought up by the merchants, which would not have been the case if taken from the black-faced animal; yet how happens it that at present the native breed excels only in the lower parts of Kirkcudbrightshire; the high country exhibits black faced sheep, which after every trial, has been found best adapted to the climate and pasture of the moors and highlands, while Chalmers owns that it has not been ascertained when or whence this hardy breed were brought to their present locality? Why, it is tolerably plain that though the white-faced sheep might be placed there originally, yet they would speedily lose every trace of their origin when placed on a hilly country, and subjected to the slow but certain influence of peculiar food and climate.

Chalmers remarks, that the black-faced sheep superseded the goats, which were a source of wealth to the farmers, and more saleable than the latter; and it is exceedingly probable that as the old white-faces began to change their appearance and become gradually able to stand the rigours of a mountain fare and winter under a dun skin and short rough wool, in like manner would they recommend themselves as the best of all stock to the hard driven agriculturist.

Several breeds of the English flocks were introduced about 1810 into the lowlands of Galloway, and a Spanish breed was at the same time sent thither by the wool society, for the purpose of experiment, but it appears that the sheep of

the district were fully equal to any of these foreigners.

Mountain sheep seldom admit of much alteration, even of a temporary nature, their habits being of that unquiet kind which renders them hostile to any thing like restraint, and are altogether under the guiding influence of man; it is for these reasons that, when once a flock attaches itself to a range of hills and becomes suited to the soil, it preserves itself for ages apart from neighboring varieties, and presents, after a long series of years, these qualities in their native purity for which they were noted by the earliest observers.

The reason of a race of animals occasionally thriving so well in a country to which they may be removed, appears to lie in their being suited, we may say accidentally, by peculiar conformation to the soil, food, and temperature to which they are subjected. There are some happy climates where breed from what animal you will, no matter how stunted, the offspring will prove large, vigorous, and every way worthy of being placed at the head of its species. Witness what Mr. Dawson, the manager of the Australian Agricultural Company, says in his journal:

"Both the climate and the soil appear by nature intended to produce fine wool and fine animals too, even from the worst beginning. The latter seems a paradox. The extensive range afforded to every animal keeps it in good condition, and perhaps the native passes may have more of good in them than their appearance indicates. However this may be, the climate clearly has a wonderful effect on the size of all animals, even upon man, who is almost universally tall here though born of diminutive parents. From this I am led to believe that the climate governs chiefly, and thus every breeding animal introduced here will attain a size not known in Europe."

Climate is certainly an all-powerful agent, and works wonderful changes, which are well illustrated. Portuguese, who, after a residence of three hundred years in India, are said to be almost as black as Caffies, and Bishop Heber, in speaking of India, says, "It is remarkable to observe how surely all these classes of men, (whites—Persians, Greeks, Jasters, Turks, and Arabians) in a few generations, even without any intermarriage with the Hindoos, assume the deep olive tint, little less dark than a negro, which seems natural to the climate." This, however, you may affirm, is not to the point, as only embracing theories in regard to peculiar changes in an animal different to sheep, but such is not the case, as what will effect colour in mankind will lead to changes of even a more wonderful nature in it, such in alterations, in shade and wool, and as we have seen even in form and texture.

To illustrate the changes that may be occasioned in animals by circumstances even of less apparent importance than the last mentioned, we may adduce the differences that exist between different ranks in almost all countries. Buffon says that in France you may distinguish by their aspect not only the nobility from the peasantry, but the superior orders of the nobility from the inferior,—these from citizens,—and citizens from peasants. The African field slaves in America

are extremely different from the domestic servants of the former nation, retaining, as they do, their original peculiarities, from poor living and degraded duties; while the latter have nearly approached to the habits and modes of thinking of their masters, from living and being well treated under the same roof.

"The South Sea Islanders," says Dr. Elliotson, "who appear to be all of one family, vary according to their degree of cultivation. The New Zealanders, for example, are savages, and chiefly black; the New Hollanders half civilized and chiefly tawney; the Friendly Islanders are more advanced, and not quite so dark, several are lighter than olive colour, and hundreds of European faces are found among them."

Indeed the examples are endless which we could readily bring forward to aid our explanations; but these it would be needless to give, seeing it is in the power of every one to study the differences, in form and features, of the classes of society in our own island, and, by so doing, understand the influence of otherwise unimportant and trivial circumstances of an animal at all times so easily moulded to situation as sheep.

Changes occasioned by climate are always limited to the fleece, horns, and fat, and never extend to those parts, on the unaltered persistence of which the animal depends for its station in the scale of being, as the feet, the teeth, and digestive organs; and as most wonder is apt to be occasioned by bony prominences being subjected with a great certainty to the modelling hand of climate and cultivation as softer parts, we give the following extract:

"One of the most curious modifications (Gardens and Menagerie of the Zoological Delineated,) produced by cultivation in the domesticated sheep, consists in the augmentation of the number of its horns; two, three, or even four supplementary appendages of this description being occasionally produced in addition to the nominal number. Under these circumstances the additional horns usually occupy the upper and fore part of the head, and are of a more slender shape, and take a more upright direction than the others, thus approaching in character to those of the goats, while the true horns retain more or less of the spiral curve that distinguishes those of the sheep. There exists a strong tendency to the propagation of this monstrosity, which is extremely frequent in the Asiatic races, is said to have been originally derived from Iceland and the Fenoe Islands. In the latter case it is unconnected with another anomaly, but in the flocks of the nomad hordes of Tartary it is usually combined with an enlargement of the tail and adjacent parts, by the deposition of fat frequently to an enormous extent."

Of the numerous breeds at present in our island, some three or four are indispensably necessary for the continuance of its prosperity. A very long woolled sheep, as the Lincolnshire or Teeswater, for the richest grass lands and finest worsted manufactures. The new Leicestershire for less fertile grass land, and for rich enclosed arable land on which the fold is not used, and for coarser worsteds, stockings, coarse cloth, blankets, and carpets. A middle-woolled breed, as the Wiltshire, the Norfolk, or the South-down,

for arable lands on which folding is practised, and for cloths of middle qualities. A fine wool-len, as the Ryeland, for the finest cloths, and a hardy race for the heathy mountains.—*Marshall on the Midland Counties.*

For choosing a breed we should adopt that which affords the greatest quantity of market produce in return for the food consumed. It was owing to a peculiar view taken of this maxim that so enormous sums were asked and given for the hire of rams at the time Mr. Bakewell brought the new Leicester to perfection.

That gentleman would never have obtained 1200 guineas for the hire of three rams if the speculators had not intended to procure nearly similar prices for the use of the offspring of these animals, and it may be pretty safely affirmed that this traffic, owing to the extent to which it prevailed, was ultimately the cause of much mischief to the breed in question, as inducing many to speculate on what was likely to prove a fashionable article, without caring much for the endurance of the really valuable points.

The tendency to become fat at an early age, though a valuable one in some points, is not so in others, as premature decay is always the result; and shows with certainty that a healthy action has not been going on during the life of the animal: Marshall remarks that fat, like charity, covers a multitude of faults, and he is right, for an ill-shaped animal if well fed, has all its angles filled up, and if its ugliness has not amounted to absolute deformity, it acquires that rotundity of contour pleasing to the eye, and so apt to mislead us. An animal when loaded with fat cannot be looked upon otherwise than in a diseased condition, and liable to disease of many organs, especially of the heart and brain, sudden death on any hurried exertion being far from rare, at the same time that life, from the difficulty of enjoying is rendered any thing but desirable.

In the valuable works of Meg Dods, you will see that "Fashion and luxury have lately introduced stall-fed oxen and overgrown sheep, which are better fitted for the tallow-chandler than the cook. They are indeed good for nothing save to obtain premiums at cattle shows, and deluge dripping pans with liquid fat." And in this every one will agree, excepting always boarding-school cooks and all others who depend for their principal perquisites on the over roasting of oily meat.

The Dishley sheep are admirably adapted to the soil and situation where they were called into existence, and their crosses are now spread over most parts of the country, principally the corn districts, as they are supposed to be the most profitable on farms where the best tillage crops are combined with the fattening of live stock; but Marshall supposes they will only continue profitable so long as other breeds of long-wooled sheep remain with thin chines and loose mutton, or in other words, that there are plenty of kinds which would prove equal, if not superior, to the present, if they only received a little well-timed attention.

In breeding and rearing rams, two divisions of these animals are recognized as ram-getters and wedder-getters—the former, from their fineness being kept for the procreation of animals like themselves, while the latter from their coarseness,

are set aside as fitted only for the parent of graziers' sheep, the mere grazier liking a ram no worse for having massiness of frame, and being less scrupulous about his form than the ram breeder, whose grand object is fineness, and who trusts to the ewes for giving the offspring size and substance.

The principal ram-breeders are guided in the choice of their ram-lambs more by blood or parentage than by form, on which, at so early an age, little dependence can be placed; and in the case of the Dishley, allow them every indulgence from the time of weaning till that of shearing, as they push them forward for the show, and let most of them the first season, while yet yearlings; and it is this early arrival at maturity which, in addition to that formerly mentioned, with justice supposed by some to occasion their early falling off, for by a law of the animal economy, premature adult age is always succeeded by premature decay, life appearing to be dated from the time the animal enters on the fulfilment of the ends for which it was created.

The quality of the flesh, which can be ascertained only when the animal is in moderately good condition, is a subject more worthy of attention than the early acquiring of fat, seeing it is more difficult to determine peculiarities of this kind at will, and require long experience to enable a person to pronounce with confidence the state of the muscular parts from the inspection of a living animal. The flesh of different specimens of the same animal varies not so much from breed or descent, as from age, feeding and exercise; thus, that of the young is soft and gelatinous, the fibres being small, weak, and much interspersed with a substance, termed, from its loose nature, cellular tissue, which exhibits in the space between the muscles small masses or layers of delicate fat—the greater bulk of the latter being situated immediately beneath the skin, and occasioning that beautiful rotundity so much admired in children; while, as the animal advances in life, the fibres become firmer, larger, and more approximated, the cellular tissues to a greater extent disappearing, and the fat changing from the outward to the inward parts, displays boldly the outline of the muscles, but gives, at the same time to the figure, that portly symptom of good keeping, so unpleasant to the sight when carried to the extent of aldermanic dignity. All these are, however, varied by the exercise, which tends, in a marked degree, to increase the muscular or fleshy parts at the expense of the fat,—the former becoming, when employed within proper limits, large, unyielding to the touch, and in every way opposed to their small flabby contrasts, the results of inactivity, while that color is heightened from a pale or purple hue to the bright vermillion, so justly relied upon by housewives as a guarantee for the superior quality of the article. The wild horses in South America, which form the principal part of Indian diet, are said by these epicures to be much improved for the table by gentle labor, and to be quite on a par, when thus cared for, with some of our best beef. This system is only, however, pursued for the purpose of rendering the flesh of their horses moderately firm; but where on opposite effect is wished, it is readily, though cruelly, produced by putting the animal to a

lingering death, examples of which are to be met with in the annals of most half civilized nations—as the Spanish mode of whipping pigs, and the English custom of baiting bulls, both tending to the same end, by so exhausting the vital contractibility, as to prevent its last and faint display in the stiffening of the carcass.

[To be Continued.]

BEET SUGAR IN MASSACHUSETTS.

We learn from an article in the New York Post that the cultivation of the beet for making sugar is now to be pursued in earnest in Massachusetts. Mr. Aphorp, of Northampton, has raised at the rate of forty tons of beets to the acre. The people of the place fell to calculating that forty tons of beets would produce 5,400 pounds of sugar, and that thirty bushels of wheat, which was all that an acre of land could be expected to produce, would weigh but 1800 pounds, so that the same land which would produce but one pound of wheat would produce three pounds of sugar. They took into calculation, also, the new method of crystalizing the syrup made in France; sugar is made in that country for three or four cents a pound. Several citizens of the place have therefore formed a company for the manufacture of beet sugar, and have engaged the services of Mr. Isnard, the French Vice Consul at Boston, and the first person who extracted sugar from the beet root. Mr. Isnard is to proceed immediately to France, as the agent of the company, and on his return next spring is to devote his whole time to giving directions and instructions respecting the manufacture. It is proposed that the shares of the company's stock be sold to cultivators, and the pay be taken in beet. Mr. Isnard has visited Northampton, and made a statement at a public meeting, of which the following summary is given by the same print:

Baltimore American.

"The business of manufacturing Sugar from the beet was commenced by himself, under Napoleon, in 1811. In the first experiments only one and a half or two pounds of sugar were made from one hundred pounds of beet. The business is carried to such perfection now, that they obtain seven and even eight pounds. By chemical tests it is ascertained that the best root contains 10 per cent of sugar. Seventy millions of pounds are now made annually in France.

"The cost of the sugar is $4\frac{1}{2}$ to 5 cents per pound, and they are confident they shall be able to make it at 2 and $2\frac{3}{4}$ cents per pound. He thinks it can be made in this country from 5 to 6 cents. The price of beet in France is from \$3 to \$3.50 per ton. The pumice is considered worth more by the pound to fatten cattle than the beet. 30 to 35,000 pounds of beet root is considered in France an average crop to the acre. About 80 per cent, of the beet juice, and about 20 per cent, is pumice. An engine of 10 horse power will rasp about 15 tons of beet in twelve hours, which produce 1800 lbs. of sugar. The expense of manufacturing 50,000 lbs. of sugar is \$60, exclusive of the raw material. Land in the district where the beet is cultivated in France rents for 100 francs, while land equally good in other districts, rent for only 15 francs.

From good land 2 lbs. of sugar to 1 pound wheat can be obtained."

Beet Sugar in Ohio.—In Dayton, Ohio, the manufacture of the beet sugar has been tried on a very minute scale. A Mr. Clark made two pounds and a half of good brown sugar from twenty-nine pounds and a half of the mangel wortzel. He describes the process thus:

"I bruised the roots with the head of an axe, and poured upon the pulp scalding water, and put the whole into a coarse bag, and wrung out by hand all the juice that I could obtain. I then put it over a fire in a brass kettle, adding milk to raise the scum—after which I added a little blood, while the syrup was warm, which caused the sediment to settle at the bottom of the kettle, when the whole stood an hour. I poured off the syrup as carefully as I could—placed it over the fire again and gave it a slow heat, and testing it as they do syrup of maple molasses, began to stir with a wooden spatula off from the fire, till it was grained off very handsome, and was much admired by those who saw it."

[From the Yankee Farmer.]

BET SUGAR.

An intelligent gentleman in Massachusetts, who gives great attention to the improvements of the day, writes to us as follows:—

Mr. Cole:

I sincerely trust that the sugar beet culture will succeed and flourish and give to those Northern States their due weight in the scale of the union. I have sanguine hopes and expectations. Once I thought little of it and doubted very much. There must have been some wonderful discovery or improvement, otherwise it would not have awakened so much attention in France and caused such excitement.

I had the curiosity to look over my bills for sugar and molasses for the last year and I found that each was about equal, or \$42 for sugar, and about the same for molasses. I had always urged the consumption especially of molasses, believing it one of the cheapest of articles of consumption—as it contributes to render a great variety of things palatable, even bread and water—and one of the most wholesome this, as well as sugar. Though we consumed \$84 for that year, (1835) yet this was only as I found 2 cts. for each person per day—how small compared with all other articles and the whole cost of board to each for a day! I am persuaded that sugar is the cheapest article consumed, and double this amount might be consumed with advantage.

If we admit that the population of our country amounts to 15,000,000, and each person should consume in the same proportion, of 2 cts. a day—the whole would amount to the enormous sum of \$109,500,000, independent of the immense quantities which go to the still.

Sugar has become, in this day, one of the necessities of life,—entering into almost every article of vegetable food, rendering the most astringent, acid, or insipid and unsavory, palatable. I am persuaded that in moderate portions it is one of the cheapest of all.

Hay from Europe!—We announce the astonishing fact that the above article has actually been

imported from the mother country, not to feed her legitimate children we grow, but to enrich some cunning speculator, for it is well known, that while our crops have been short the past season, those in England were abundant. We hope that the sterility of the crops will not extend itself to the necessities of life, otherwise the days of the Israelites will be revived, and we must descend upon the land of Canaan to purchase corn.—*Staten Islander.*

STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's Improved Cylindrical Straw Cutters, of various sizes, adapted for horse or manual power. The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, has rendered them the most effective Straw Cutter in this country—they are so constructed as to be capable of cutting corn-stalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realise a profit by feeding to his cattle his corn-stalks; which would otherwise be lost. These machines are self-feeders, the knives of spiral form, and act on a bed-steel, in such a manner as to cut with great ease and despatch; the sizes are as follow, viz:

20 inch box, suited to horse or water power, capable of cutting 100 bushels per hour.

14 inch box, suited to manual or horse power.

11 inch box, suited to manual power, and will cut 600 bushels of straw per day with perfect ease. This size is of sufficient power for the wants of the generality of Maryland farmers.

de 27 ROBERT SINCLAIR, Jr. & Co.

A DURHAM BULL.

THE editor of the Farmer and Gardener, Baltimore, has for sale, in this city, a beautiful young bull 2 years old, of the Improved Durham Short-horn breed.—He is red and white, beautifully marked, and of great beauty of form and points.

Baltimore, Dec. 27, 1836.

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DUTCH BULBOUS FLOWER ROOTS.



The increased desire and spirit exhibited the last season to cultivate Flowers and other ornamental plants, has induced us to obtain from Holland an assortment of Tulips, Hyacinths, and other Bulbous Flower Roots.

Those now on hand are just received, and are particularly large,

strong and of the finest kinds. They consist of the following, viz.

- 150 sorts double and single Hyacinths
- 75 do Early Bizarres, Bybloem, and double Tulips
- 20 do single and double Narcissus
- 5 do Crocus
- 14 do superb Amaryllis at 25c. a \$10 each
- 8 do Crown Imperials

Also, Gladiolus or Sword Lily, Iris, Arum Dracunculus or Dragon Plant, Anemone, Snow Drops, &c. &c.—And early next spring we will offer for sale a superb collection of Double Dahlias, consisting of 200 named sorts, inferior to none in this country. Also, Jacobian Lily Roots, double Tuberose, Tiger Flour and other delicate Bulbs.

ROBERT SINCLAIR, Jr. & CO.

Light near Pratt street whf.

Catalogues of Bulbs and directions for planting will be furnished on demand.

no 29

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire.

Price, \$500.

All letters upon the subject must be post paid.

POINTERS FOR SALE.

A thorough bred Pointer Slut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper.

no 15

4t

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

R. SINCLAIR, Jr.

aug 30

Light near Pratt-st whf.

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE.

At Clairmont Nurseries, near Baltimore.

THE subscriber heroby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1-2 to 4 feet—the 2 feet and 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.

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ROBERT SINCLAIR.

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000.—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

Orders for the Morus Multicaulis, and indeed for all other trees and shrubbery, should be handed in by the 15th of October, and the articles will be sent according to directions, so as to reach their destination by the 1st to 10th November. Every purchaser will receive Prince & Sons' printed bills with their signature and guarantee.—Orders from a distance or from persons unknown to the subscriber, should be accompanied with respectable references in Baltimore or New York, or the money.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltimore

sep 27

CONTENTS OF THIS NUMBER.

Newly invented agricultural machinery—Turnip Fly—Notice of Mr. Huntington's defence—Trifolium Incarnatum—Management of Cows—new Stone Cutter—new Bee Hive—Remedy for flies on sheep—Premium Cotton—on the reduction of the duty on wheat—Carrier Pigeons—Ruta Baga, or Swedish turnip, (concluded)—Improvement of the breed of sheep, (continued)—Beet Sugar in Massachusetts—do. in Ohio—Hay from Europe—Prices Current—Advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs.		7 50
CORN, yellow,.....	bushel.	87	90
White,.....	"	83	85
COTTON, Virginia,.....	pound.		
North Carolina,.....	"		
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 50	13 00
Do. do. baker's,.....	"		
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	
" wagon price,.....	"	10 25	
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	10 50	
Rye,.....	"	7 00	7 50
Kiln-dried Meal, in hhd.	hhd.		21 00
do. in bbls.	bbl.		4 62
GRASS SEEDS, red Clover,.....	bushel.	7 00	8 00
Timothy (herds of the north)	"	3 25	3 75
Orchard,.....	"		2 75
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"		1 25
HAY, in bulk,.....	ton.		20 00
HEME, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 50	8 50
Slaughtered,.....	"		
HOPS—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	50	55
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 25	
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGE,.....	pound.	3	4
RYE,.....	bushel.		125
Susquehanna,.....			
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"		
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.		2 25
Red, best,.....	"	2 00	2 05
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhd.,.....	"	39 1/2	
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	
To Wheeling,.....	"	2 00	
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do,.....	"	33	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,.....do.....	"		15
Middlings,.....do.....	"		15
Assorted, country,.....	"		14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87	1 94
CHOP RYE,.....	"		2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.		
No. 2,.....	"		
Herrings, salted, No. 1,.....	"	3 50	
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"		6 75
Cod, salted,.....	cwt.		
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....par		Farmers Bank of Virginia 1
Branch at Baltimore,.....do		Bank of Virginia,.....do
Other Branches,.....do		Branch at Fredericksburg do
MARYLAND.		Petersburg,.....do
Banks in Baltimore,.....par		Norfolk,.....do
Hagerstown,.....3a		Winchester,.....do
Frederick,.....do		Lynchburg,.....1a1f
Westminster,.....do		Danville,.....do
Farmers' Bank of Mary'd, do		Bank of the Valley,.....do
Do. payable at Easton,.....do		Branch at Romney,.... 1
Salisbury,.....5 per ct. dis.		Do. Charlestown,....do
Cumberland,.....1		Do. Leesburg,.....1
Millington,.....do		Wheeling Banks,.... 2a3
DISTRICT.		Ohio Banks, generally 3a3 1/2
Washington,.....}		New Jersey Banks gen. 1 1/2a 2
Georgetown,.....} Banks, 1/2.		New York City,.....3a
Alexandria,.....}		New York State,.... 2 1/2a 3
PENNSYLVANIA.		Massachusetts,.....2a2 1/2
Philadelphia,.....3a		Connecticut,.....2a2 1/2
Chambersburg,.....1		New Hampshire,.... 2a2 1/2
Gettysburg,.....do		Maine,.....2a2 1/2
Pittsburg,.....2a2 1/2		Rhode Island,.....2a2 1/2
York,.....3a		North Carolina,.... 3 1/2a 4
Other Pennsylvania Bks. 1 1/2a 2		South Carolina,.... 3 1/2a 4
Delaware [under \$5].... 3a 4		Georgia,.....3 1/2a 4
Do. [over 5].....2a 3		New Orleans,.....6
Michigan Banks,.....6a		
Canadian do,.....6a		

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds.

Price—per copy, 50 cents.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25. THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of S raw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herd Grass seed of superior quality.

JONATHAN S. EASTMAN.

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 12. Editor Farmer & Gardener.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 36.

BALTIMORE, MD. JANUARY 3, 1837.

Vol. III

THIS publication is the *successor* of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JAN. 3, 1837.

As the New Year will have passed before we issue another paper, we would tender, in advance of that event, our salutations to our patrons and friends. To all we wish health, happiness and prosperity,—and to our agricultural brethren, we sincerely hope that the year 1837, may prove one of luxuriant crops and good prices.

REPEAL OF THE DUTY ON WHEAT.

The subjoined article we copy from the Fredericktown Examiner, and although specially addressed to the Farmers of Frederick County, Maryland, we consider it equally applicable to every farmer residing in that vast portion of our country, which is termed the wheat-growing region, comprising New York, Pennsylvania, a part of New Jersey, Delaware, Maryland, Virginia, part of North Carolina, and parts of several of the western states. We therefore insert it, and call the attention of the agricultural interest generally to the subject. Let the entering wedge of reduction of duties be made on wheat, and it will follow, as a matter of course, that every other article of agricultural product, now protected, will share a similar fate; and ere long, the great, and as it ought to be from its importance, paramount interest, of farmers, will be left wholly without protection at all; for if one link in the chain of their interests be once severed, there is no telling where the injury may end.—Let us, therefore, dispassionately inquire, what is the cause which operates to make this reduction necessary? Is it not short crops? If it be, that should not most certainly be held as a good and substantial reason for the success of the proposed measure. For the very men who will be the greatest sufferers, already from the cause just assigned, will be subjected to an additional and permanent infliction of injury, for a temporary

effect, in the production of which they have no agency whatever—for a dispensation of Providence. Would this be just? Would it be righteous to visit those who “earn their bread by the sweat of their brows,” with a wrong so fatal to their interests, because it has pleased Him who works all things for our our good, to send a blight upon one description of the produce of the earth? We think not. But who will be benefitted by this proposed reduction of the duty on wheat? If it go into operation immediately, no one but the foreign grower, or the importer, will derive any advantage from it, because any importations which can possibly be made, cannot, to any extent, affect the price, as that is always regulated by supply and demand, and it is known that from the scarcity of the production of the article at home, and the difficulty, and length of time which is requisite to bring it into our ports from abroad, the quantity cannot be sufficient to materially affect the price in our markets, during the supposed period of scarcity. If it be intended to make the proposed reduction have a prospective effect—to take place some months hence—then the question occurs, whether the necessity for the measure will not have ceased to exist before the law goes into effect? Should it be the good pleasure of God to bless the labors of the husbandmen of our country with fruitful harvests the ensuing season, the fulness of the supply will effect the very object intended to be wrought by the proposed measure, and that too, without any sacrifice of the interests of one part of the community to benefit another.

What has been the price of wheat in years of ordinary fruitfulness? The prices of wheat, as in quality, have ranged from \$1 00 to \$1 30 per bushel,—and will any one say that these prices are beyond a medium of just remuneration? We think not. Why then lay violent hands upon a class of persons so numerous, so respectable, and so essential to the well-being of our country? Let him who would raise his voice against the farmers of our land, look around, and ascertain who among them have got rich under the protection afforded to their labors by government. If he do so, he must be convinced at once that there is at least folly in the attempt to

force the independent yeomanry of our country into a state of disastrous competition with the serfs and vassals of the aristocracy of Europe. What is it that constitutes the wealth of a nation? Most certainly the independence of its citizens—individual prosperity, and not the accumulated revenue in government coffers. In ordinary years of plenty, America is enabled to export wheat and other bread stuffs to every clime where they are needed, and thus add to the commercial and agricultural prosperity of the nation. It is from wheat and other surplus products, that our commercial marine have found employment—it is from these causes, that our vessels have been enabled to penetrate every sea: and shall we now, because disaster has fallen to the lot of the American agriculturists—because the earth has refused to yield as fruitfully as heretofore—because it has failed to reward the toils of the husbandman, shall government be called upon, shall it be invoked to add to the sum of misfortunes already too onerous? Why should the farmer be selected as a victim? Is there a dread of a famine? No. All well informed men reject such an idea as groundless. There are plenty of products raised to sustain the wants of our people, and if there should not be wheat bread enough for all, there are numerous other edibles raised, in plenty, upon which our people can be sustained. If any well grounded dread of famine did really exist, there would be some plausibility in a temporary suspension of the duty on wheat and all other articles of human consumption; but as such is not the fact, we are opposed to all innovations, which, in their operation, go to despoil the American farmer of his well-earned reward of his toils.

[From the Fredericktown Examiner.]

TO THE FARMERS OF FREDERICK COUNTY.

I would call your immediate and earnest attention to a subject vitally affecting one of your most important interests. It is proposed in Congress to repeal the duty on Foreign Wheat.—The duty at present is 25 cents a bushel. Let this duty be repealed, and it is doubtful, whether, in ordinary times, you will ever get one dollar a bushel for your wheat hereafter. Wheat is raised in some parts of Europe in such quantities and at such reduced cost, as to be sold there at fifty or sixty cents a bushel. The expense of

bringing it to this country will be but a few cents more. Then you will be brought to compete with foreign wheat at 70 or 80 cents a bushel. Can you do this? Can you make wheat at 80 cents a bushel and pay your expenses? I think not.

You will at once see the importance of this subject, and adopt suitable measures to protect yourselves. Get up memorials to Congress, and call meetings to pass resolutions instructing your representatives to vote against the proposed repeal of the duty. There is no time to be lost. Congress will act speedily, and, having by their act repealed the law, it will never be restored.

The plea for this repeal is the present high price of wheat. What is this owing to? To causes which have not operated within the memory of the oldest man living, and which in all probability will not operate again for ages to come. Is it right, is it good policy, to be making laws permanently, affecting one of the most important branches of business, to provide for emergencies so extraordinary as the present?

Again, if high prices are sufficient to call for the repeal or enactment of laws, why not embrace every article of common use at the present day? Why not repeal the duties on sugar, iron, &c. &c.? They are very high. Much might be said upon this subject, but I forbear, believing that your intelligence will at once comprehend it in all its bearings.

JUSTICE.

We extract with feelings of pride and pleasure the following notice of the resources and prospects of Ohio from the message of the late Governor Lucas. It is a compliment as well-timed as merited to the onward cause of the industry of her citizens. And while we are gratified at her present and prospective sources of wealth and power, we but do justice to our feelings when we say we are more than gratified at the commendatory manner in which Governor Lucas speaks of the culture of the Mulberry, and Sugar Beet, two branches of industry so eminently calculated to advance the agricultural prosperity not only of that state, but of the country at large:

Extract from Governor Lucas' Message.

"The State is at present an agricultural State, and must continue so to be, as long as labor can be more profitably employed in agricultural, than in manufacturing pursuits. With the exception of the articles of Salt and Iron, the manufactures in Ohio are not extensive; but when her population becomes too numerous, and her capital too great, to be employed profitably in agriculture, a portion of each will be employed in other pursuits: and in my opinion, no State in the Union (or perhaps any other part of the world,) possesses greater advantages for manufacturing than the State of Ohio. Her geographic position, her public works, the immense water power that has been acquired, by the establishment of her Canals, and the improvement

of her rivers, the inexhaustible resources from which to draw raw materials for manufacturing, the abundant supply of every article of provisions, the facilities afforded in exporting manufactured articles to market, and the importation of such raw materials as are not procured at home; these things, with numerous other manufacturing advantages, must inevitably render the State of Ohio at some subsequent period, one of the greatest manufacturing, as well as agricultural States in the Union. The soil and climate, so well adapted to the growth of the Mulberry, may place Silk manufactories in a favorable position; and the adaptation of our soil and climate to the Sugar Beet, may bring that article into successful competition with the sugar cane of the South."

We find the following communication marked for our eye in the *Germantown Telegraph*, and as the writer seems to question the fact which we published some weeks since, of 1510 bushels of Ruta Baga having been raised on an acre of ground, we will remark, that although we do not vouch for all that appears in our columns, we endeavour so far to exercise the right of censorship as to preclude that which we believe is calculated to lead our agricultural brethren into error.

That the named quantity of Ruta Baga, viz: 1510 bushels has, and can again be raised from an acre we have no doubt. It is known to every one acquainted with the culture of this excellent root, that in England, as well as in this country, products equally as large have been repeatedly raised. On a small scale, it appears from the statement of the *Germantown Farmer*, that he raised of the common turnip, planted in drills two feet apart, by 6 inches, at the rate of 500 bushels to the acre. These turnips would have grown equally as well if the rows had been but 12 inches apart, and consequently would have yielded just twice the quantity. And on good ground, well manured with thoroughly rotted dung, rich mould, or a compost of cow-dung and ashes, the plants might with advantage have been brought to stand 8 inches apart, that is, the rows eight inches apart, and the plants the same distance, which we think would have given the quantity stated, provided the turnips had been planted in due time, hand hoed, and well protected from weeds. What the precise quantity would be, we, however, leave the "*Germantown Farmer*" to calculate. And should he discover that the yield would be more than the stated quantity, we take it for granted, he would admit that, as the Ruta Baga grows larger, it necessarily must yield more than the common turnip, and especially as from its irregular form, it measures more. Those who advocate the drill husbandry for turnips generally

recommend that the rows should be one foot apart and the plants the same distance from each other;—now this would give us 43,560 turnips on an acre; and for the information of our *Germantown Farmer*, we would remark, that we measured and counted a bushel of the turnips raised by us the present season on Friday last, which, owing to being sowed late, and on ground not at all manured, were but of medium size. The bushel contained 45 turnips, which, if they had stood a foot apart would give to the acre 968 bushels. Our crop did not yield at this rate; for owing to drought when the seed was sown, there were as many, if not more bald than covered places in our patch, and from this cause our yield was not above 250 bushels to the acre; and although but half that of the *Germantown Farmer*, and the third of the yield of the grower of the Ruta Baga, we rejoice in our heart that others had been more successful than ourself; felt no disposition to "question the correctness" of the statements of those who had been more fortunate than we had, and, of course, gave ourself no trouble in speculating, whether a cypher had been added or not, for although we have grown too old to believe all we read, or to give in to every fashionable dogma, or crude notion, that these eventful days are hourly bringing forth, we have too much respect for the social duties of man, as well as for the courtesies of life, to question the averments of our neighbors upon slight grounds, believing as we do, that the questioning of the veracity of another is one of the most impertinent as well as unpardonable offences which one man can commit against his fellow creature. Truth as we have said upon another occasion, we hold as the basis of every other virtue, and, therefore, hold its opposite in utter abhorrence, and while we shall entertain sufficient respect for ourself to cultivate virtue and despise vice, we shall certainly expect courtesy at the hands of others.

Near Germantown, 8th Dec., 1836.

To the Editor of the Telegraph:—

I have been pleased with the articles on farming and agriculture that you extract and select from various sources; but while we have the good manners to listen to their wonderful stories, let us not forget that we have a right to have a say in the matter too; and I am surprised that our fellow townsmen have not sounded their own trumpets on this subject: let me set them an example, and show that we can raise turnips as well as the Baltimoreans.

On the 17th of August last I dug over two rods of ground on which I had raised early peas and onions, (manuring the part where the peas had stood, but not heavily; the onion land had been manured previous to planting the onions,) and

sowed or dibbled the flat blue topped turnip seed in two rows two feet apart and six inches apart in the row. I flat hoed them twice, I believe, afterwards; thinned them out to single plants in due time, and kept them clear of weeds. They grew finely and completely covered the land thick with their tops. I took them in on the 2d of November last, and had more than six bushels of turnips on these two rods of ground. This is at the rate of 500 bushels to the acre for a ten week's crop, but not 1510 bushels certainly. I am inclined to question the correctness of this Baltimorean story; for mine stood as thick as they could well stand on the ground and were quite as large or larger than any ruta бага that I have seen in this country. There is a mistake in it to a certainty; for it does not give four square yards of land to each bushel of turnips; and to have them fine they should be grown in rows three feet apart, and a foot apart in the row. This would give twelve turnips in the four square yards, and these must more than fill a bushel, to have 1510 bushels on an acre of land. It looks a little incredible; perhaps a cypher has been tagged to the story; a nothing in itself; but something wonderful when used in union with 151. Soliciting proof and evidence of this astonishing turnip crop,

I am, Sir,
Yours respectfully,
A GERMANTOWN FARMER.

MR. HUNTINGTON'S DEFENCE.

Our paper was full when we received the following defence of Mr. Huntington in the columns of the Northampton Journal; but in order to let the justification of the gentleman reach our readers at the earliest possible period, we have made room for it, and are happy in saying that he stands in our opinion entirely exonerated from all impropriety of conduct as the agent of Mr. Whitmarsh; who, it appears by the testimony of the former gentleman, "*directed*" the first advertisement.

We insert also an authorized notice by the editor of the Northampton Journal concerning Mr. Whitmarsh, to which we beg leave to call the attention of our readers,—and in giving place to it, we seize the occasion to say that we hope Mr. W. may be able to make out as strong an explanatory case as his agent has.

(From the Northampton Courier.)

Mr. Atwill.—I perceive that you have alluded in your last week's paper to certain charges in the Genesee Farmer against Mr. Whitmarsh and myself, in the sale of Mulberry seed. I have addressed to the editor of that paper the following letter, but as some time must necessarily elapse before it can be published and return home, and as you have brought the subject before the public, it seems proper to request of you its publication.

To the Editor of the Genesee Farmer:—

Sir,—Your paper of the 3d inst. has been handed me, in which you have indulged in cer-

tain strictures upon Mr. Whitmarsh and myself, in relation to the sale of Mulberry seed. Mr. W. informs me he has written you, but as you have seen fit to include me in your denunciations, I beg leave to say a few words for myself. As your remarks breathe a spirit of prejudice, not to say hostility, I think it would have been more fair had you not prefaced them with demonstrations of candor and disinterestedness. I hope you did not intend by these professions to give more point to your poisoned shaft, and though you may feel reluctant to admit this communication, yet that you will feel bound by your avowal of impartiality, to give to the public through your columns, a brief statement of facts, so far as I am concerned.

The advertisement of the "Chinese Mulberry seed" which you copy from the Hampshire Gazette of March 28, was ordered by Mr. Whitmarsh while in Europe, and its terms and the description, were dictated by him. This was the first knowledge I had of his purchasing or intending to purchase seed [I may add tress, or any thing else.] I then supposed, as you say others in your vicinity did, that it was the Multicaulis. Mr. Whitmarsh did not arrive till quite the last of April, and the seed did not come to hand till after his arrival.

It was not till I saw him, that I found it was not the Multicaulis, and I immediately stated in the Hampshire Gazette that it was not, in the paragraph which you have preserved and copied. I was solicitous myself to do away any incorrect impression which I had innocently given, and Mr. W. also expressly stated that he did not wish any one to take it except with a knowledge of the facts. This correction would come to the knowledge of all the readers of the Gazette, and of all the exchange papers, which were requested to copy the first advertisement. Not only this, I took particular pains before any orders had been supplied, to inform those who applied personally for seed, that it was not the Multicaulis, and I so stated where it was sent abroad, except when the season had so far advanced that it was too late for delay, when time had been given for the information to be diffused, and when I had ascertained that purchasers were almost in every instance as well satisfied with the article sold as with the Multicaulis. In one instance an individual demanded a return of his money, because it was not the Multicaulis, in so insulting a manner, that I referred him to Mr. Whitmarsh. [In another case, since recollected, a threatening letter was sent in which the writer was answered "according to his folly."] It is not true that an agent was despatched to Rochester with the seed. Messrs. Reynolds & Bateham had sent a very urgent order for five papers, and a gentleman of this town happened to be going to Rochester on a visit just as the seed arrived, and I requested him to supply R. & B.'s order, as a favor to them. He took a few other papers and sold just seven of them and no more. He was particularly instructed not to sell it as the Multicaulis, and to inform purchasers that it was not the Multicaulis. I have seen him to day, and he tells me he collects those instructions perfectly, and that he gave the information to those few who bought of him, and to Reynolds & Bateham themselves. This was the only seed delivered or sent away

before the notice was given in the Gazette that it differed from the Multicaulis, that I recollect.

You see then that the foundation on which you rest your weightiest charges is removed, and of course the whole fabric of false accusation falls to the ground. Your main charge so far as I am concerned is, that this information was not given till "*after the orders had been supplied*." [It would have been enough for me to correct the error as soon as it came to my knowledge, had the orders been supplied. But they had not.] Besides the refutation given above [and which is susceptible of ample proof from those who gave orders] the very article you quote from the Gazette of May 4, shows the falsity of the charge. That article begins by saying—"The Chinese Mulberry seed which we advertised a few weeks since for Mr. Whitmarsh has come to hand, and can be had by calling at our office," stating the price, and quantity, and nature of the article, and that it was not the Multicaulis, and quoting Mr. Whitmarsh for the character of the plant. I had previously told persons giving orders that they would be notified of its arrival through the columns of the Gazette. Here then is a paragraph for the first time announcing its arrival, and price, and yet from this paragraph you infer that all or most of the orders had been supplied. The public will judge what your inferences are worth. They can determine whether one would be likely to advertise the arrival of an article after it had been already sold—whether I should have been at the pains of informing persons who had given orders, that their seed had arrived, if they had it already in their possession. [It is also to be noticed that the self-same paragraph which announces the reception of the seed, states expressly that "*it is not the seed of the Multicaulis*," and this was stated as soon as it came to my knowledge.] Indeed it appears from your own statement, that Reynolds & Bateham knew that it was not the Multicaulis, when they received it, for you say they refused to sell it on this account. How could they have known it in less than a week after its arrival except through ourselves? As to the quantity of seed in a paper, I never weighed or counted them, relying on Mr. Whitmarsh, and in him I had then, and still have perfect confidence. He has throughout manifested a zeal, enterprise, and public spirit, rarely to be found. He has hazarded every thing in the culture of silk, except reputation, and that, you and your backers seem disposed to take from him. As to the character of the plant, I do not profess to be a judge, but I am satisfied from the opinion of our most experienced cultivators of trees, that your seedsmen and nursery-men, if they had not been imposed upon by pedlars of spurious seed, are but poorly fitted to talk about trees from the cedar down to the hyssop.

Yours, &c. C. P. HUNTINGTON.

To the above, I would add, that I always held myself ready to return any man his money, upon a fair representation that he took the seed supposing it to be Multicaulis, and that whatever complaint was made in civil terms, that it did not hold out in counting, as happened in a few instances, I immediately sent more seed, if so desired.—Moreover, cultivators who purchased this seed last spring, and have seen the product,

are now ordering more of the same, which has been lately advertised. I therefore pronounce the article from the *Genesee Farmer* a malicious libel, and its editor a vile calumniator. C. P. H.

P. S. Since writing the above, I am reminded by an accidental conversation with Mr. Hawley, my associate at that time in the *Hampshire Gazette*, that a long list of names and places were handed him by me, the week that the article appeared in which it was stated that *the seed had arrived, and that it was not the Multicaulis*, and that I requested him to send a paper containing the paragraph to each of them. These were the names of those persons at a distance who had given orders for seed, affording them an opportunity to countermand them if they chose, or to direct as to its transmission, and to pay for it. It would be "wasteful and ridiculous excess" to furnish further evidence of the reckless falsehood uttered by the "*Genesee Farmer*."

Mr. Whitmarsh authorises us to offer fresh papers of Mulberry seed to those who have purchased of him or his agent imperfect papers, provided the seed has been properly sown and has not from this cause failed of germination. Any deficiency in quantity, he is willing, most cheerfully, to take up, where the number of seed has fallen short of what was originally intended. It is very evident the manner of sowing the seed has been destructive of large quantities of it. Many have obtained four or five hundred of plants from a paper, and other individuals have not got ten plants from packages of the same sort of seed. Besides, no one who has any acquaintance with seed of the mulberry, expects to obtain as many plants as there are seed, because of the difficulty of procuring it in the exact time when ripe and yet retaining its vitality. Another thing, farmers all know that this has been a season of extreme fatality to seed of every kind. There is no one, perhaps, in this region, who has not had occasion to replant some one kind of crop and no reason exists, why mulberry seed should have escaped the general injury. We have inquired particularly respecting the tree which comes from the seed heretofore sold by Mr. Whitmarsh, and learn that the leaf is nearly as large as the *Multicaulis*, at least as large as three of the common white mulberry, and that the number on the stalk, exceeds, by nearly two to one those on the *Multicaulis*. It was selected as being superior for foliage in kind and quantity, and for its ability to endure the severity of our winters.—[*Ed. Northampton Courier*.]

MR. WHITMARSH'S DEFENCE.

We received by Saturday's mail the defence of Mr. Whitmarsh, and publish it with unmingled feelings of pleasure. It will be seen by our readers that this gentleman took the earliest opportunity of correcting the error of the first advertisement, and makes a generous proposition to repair whatever injury may have been sustained by purchasers, from the want of vitality in the seed. He still maintains that the seed was of a superior variety of *Chinese Mulberry*, and

from his high standing as a gentleman, and the flattering testimony borne in his behalf by the editor of the *Northampton Courier*, we think his averment entitled to full credit.

We also append to his defence the editorial notice by the latter gentleman, which, together with his own defence, we trust will place him in an honorable position before the public.

NORTHAMPTON, Dec. 26, 1836.

MR. ATWILL,—Sir,—As much has been said respecting the sale of *Chinese Mulberry* seed last spring, and many unjust accusations have been made, originating apparently with the *Genesee Farmer*, but (it is believed) in reality in another quarter, I send you a letter which I wrote to the editor of that print, two weeks since, requesting the insertion. As he has not noticed it in the paper of last week, I must request you to insert it. I cannot say that it is an exact copy, as I kept none, but believe it to be the same. I regret exceedingly to be thus brought before the public, and that the gentleman who acted as my agent during my absence, should be compelled to share with me the mortification of this wicked and malicious assault. It is well known that Northampton has taken the lead on the subject of silk culture, and that there are many here who take a lively interest in its success, and feel a just pride in the estimation in which the character of our citizens is held abroad. I feel that in the charges which have been made, not only the honesty of myself and agent has been questioned, but that Northampton must come in for a share. Now, sir, could I for a moment suppose that the people of Northampton looked upon me as so great a lover of gain, thus to stoop to the meanest of pedlar's tricks, and that too to the injury of a cause, to the success of which I am giving my utmost strength, which is present with me in my sleeping as well as waking dreams—I should bid farewell forever to that peace and happiness which I have here enjoyed, should expect as I deserved, the execration of the whole community. I speak of myself—Mr. Huntington is too well known to need my feeble aid. All the sin in this case must rest with me. If I have committed any, it was of the head and not of the heart. Complaint has been made of the price of the seed. I trust every one has a right to set his own value on his property, when the purchaser is free. My estimation of its value has not been lessened by the result. I regret one thing only—for want of forethought, I suggested to Mr. Huntington that the papers would produce 3000 to 4000 plants. In fact the papers which I counted contained that number of seed, but was too sanguine of the vitality of the seed—this error I will most cheerfully correct, by giving to any person who has just cause of complaint on that score, another paper of the seed which I am daily expecting from Italy, or of the kind which I now have as the *Multicaulis*.

Respectfully, SAMUEL WHITMARSH.

NORTHAMPTON, Dec. 11, 1836.

LUTHER TUCKER, Esq.

Editor of the *Genesee Farmer*—

SIR—I have read with pain an article in your paper of the 3d. December, in which you accuse

myself and C. P. Huntington, Esq. with deception—wilful deception in the sale of *Mulberry* Seed last spring. This, sir, you must be aware, is a serious charge to make without the slightest evidence, and respecting those of whom you say you know nothing. Would it not have been well to have made some inquiries? or if you felt so great an interest in the cause, to have addressed me on the subject? Mr. Huntington, I trust, is able to answer for himself. I will only observe that, if any deception or fraud has been practised, it must rest on my shoulders. Has there been any deception practised? You say positively that there has. In what, sir?—that all the seed did not vegetate?—or that I intended the seed should be purchased as *Multicaulis*? That it did not vegetate as well as could be wished, is most certain. Of that I could not be aware, having never tested it. I purchased it as fresh seed. It certainly had every appearance of being good. Was it sold as the *Multicaulis*? I answer most decidedly, it was not. In my search for the seed of the *Multicaulis* in Italy, I was told that there was no such thing in France or Italy—that the tree produced but little or no seed—but that they had a small quantity of *Chinese Mulberry* Seed, which was more hardy than the other, and in many respects better. I was shown the trees along side the *Multicaulis*—the thermometer then at 5 degrees below zero, and had been the day previous at 14 deg. below. (I carried a thermometer with me.) I examined trees of three years old down to those of a few months, (from seed sown in August) the wood of all perfectly ripe, and even the small ones without protection. I examined them in the same grounds with the *White Mulberry*, and found them from all appearance decidedly the best sort I had seen in my travels, and one particularly well calculated for our climate. I forwarded the seed to my agent. He did not receive it till after my arrival on the 29th or 30th of April. Immediately on my arrival, fearing that some might purchase it as the *Multicaulis*, I explained it to Mr. Huntington, who in his next paper inserted the notice you have copied. In the meantime, I had written to several persons, and personally told all who called for seed, that it was not the *Multicaulis*.—Nevertheless, all who called for it or had ordered it, received it as the *Chinese*, excepting one or two instances, and still further, I have now orders for the same seed (which I am daily expecting) in preference to the *Multicaulis*, from those who are acquainted with the two sorts. The nurseryman who wrote you such a sweet letter, wishing you to chastise me—he—a nurseryman—could not see the difference between this and the common *White*!! Perhaps he would not see the difference between a white oak and a lilac oak. I must take leave of the subject by repeating that there has been no deception practised, and that in my opinion at least, the plants raised from the seed in question, are of more value than the *Multicaulis*, of which time will decide.

As your confidence in me appears to be so much shaken, that perhaps you will not believe what I say, I send you the original bill of the seed. You will perceive I have erased the figures only, and send the bill as I received it from the hands of the person who has signed his name.

You have wronged, deeply wronged, my agent and myself, and I must appeal to you as a man of honor, to render what justice you can, by inserting this letter in your next number, that those interested may form their own opinions.

Respectfully,

SAMUEL WHITMARSH.

Mr. Whitmarsh and the Genesee Farmer.—In another column will be found a copy of Mr. Whitmarsh's letter, addressed to the editor of the Farmer at Rochester, who has charged Mr. W. with selling spurious seed as genuine Multicanlis. To our unqualified surprise, the editor of that journal has published neither the statement of Mr. Whitmarsh or that of Mr. Huntington, but preserves a studied silence on the subject. He must have received them, as they were both sent more than a fortnight since, and the plainest principles of justice demanded of him to allow the assailed parties to defend themselves, through the columns of his paper. We protest against a course so unfair and disingenuous, because it is inflicting unpardonable injustice upon honorable men, by filching them of their good names, and reflecting dishonor upon the whole town of Northampton.

The Baltimore Farmer has republished the allegations of the Rochester Journal, and the editor has added his own commendatory comments against Mr. W. He, however, has had the magnanimity to republish, in connection with it, our paragraph of week before last, in which we attested to the honorable character and unimpeachable integrity of both the gentlemen assailed. As editor of a public journal, in Northampton, we cannot stand aloof and see the character of two of our most exemplary and unoffending citizens assailed in the ruthless manner, without coming to their rescue. Especially as the Genesee Farmer so dishonestly refuses to allow them to be heard in self-defence through the channel in which the assault was made upon their integrity.

For the information of persons abroad and journals exchanging with the Farmer, who may see the rude attacks upon Mr. Whitmarsh and his agent, we will remark, that both of these gentlemen are among our most respectable citizens, esteemed alike for their honorable and extensive dealings here, as well as for their scrupulous probity of character. Neither of them are capable of designedly misleading the public, much less disposed, are they, to play the knave by selling *Spurious Mulberry Seed*! Such an allegation might be made against the most exemplary men in Rochester, with as much truth and justice, as against either Mr. Whitmarsh or his Northampton agent.—We repel the calumny, therefore, as one sustained neither by fact or creditable evidence, and if the Farmer had honorably allowed them to explain the incongruous statements which appear to militate against their fairness and honesty, the public mind at once would have been disabused of that malevolent and criminal charge, that these gentlemen had wantonly betrayed private confidence, by selling *spurious mulberry seed for the genuine article*!

LARGE HOGS.

BIG HOGS.—David Smith, of Hadley, has slain five hogs, the whole weight of which exceeded twenty one hundred! One fellow had grown so corpulent about the face that, literally he could not look "beyond his eye-lids!"—*Northampton Courier*.

Mr. Cornelius Husted, of Pine Plains, in this county, fattened this fall, a "lady pig" and eleven "blooming responsibilities," the aggregate weight of which was *twenty-four hundred and thirty seven pounds!* If Northampton can produce a swinish family having more weight in community than this, we will give it up, and say nothing about one of our Dutchess county pigs, which had grown so fat, that—would you believe it?—his mother did not know him!—*Poughkeepsie Telegraph*.

LARGER STILL.—Messrs. Editors,—In order to sustain the credit of old Dutchess, I enclose you the weight of eleven hogs, which I sold to Mr. Eli Mygatt, merchant, of New Milford.—Their weight was as follows: 350, 352, 384, 387, 391, 400, 422, 448, 453, 459, 496. Aggregate weight 4542 pounds; average weight 413 pounds. The hogs were one year old in June last.

ALBRO AKIN.

Quaker Hill, Dec. 26, 1836.

Ibid.

There were yesterday brought to this market, by Mr. Nathaniel Brown, of Scituate, nine hogs, raised by him the present season, weighing in the aggregate after being dressed, 3443 lbs., averaging a fraction less than 383 pounds each. The largest weighed 460 pounds. They were purchased by Messrs. Ward A. Work, and J. Florer, of the Old Market.

Mr. Brown, although on the right side in politics, has in this instance proved himself a "whole hog man"—for either of his productions would be worthy of a barbecue in the best western style.—*Providence (R. I.) Journal*.

[From the Dumfries Herald.]

IMPROVEMENT OF THE BREED OF SHEEP.

[Concluded.]

Diet, as most people are aware, has a powerful influence on the constituents of the body; thus a rank succulent pasture taints the flesh, or renders it insipid and unpleasant, while a dry aromatic herbage communicates a delightful flavor, and enables people versed in the pleasures of the table easily to discriminate between turnip-fed and grass-fed mutton, and again between the latter and that which has spent its existence on the hills. In Touchwood's Syllabus of Culinary Lectures, attached to the commencement of the book, and Housewife's Manual, by Mistress Dodds, we are briefly informed, that mutton is not good under three years old. The best is above five, but is seldom to be got in the market of that age. The black-faced or *short-sheep* are best for the table, though more depends on the pasture than on the breed." More, in fact, depending on feeding and management, than on the variety of the animal, though this, of course, is not to be neglected.

Marshall, who touches very slightly on the subject, says, "the flesh of sheep when slaughtered, is well known to be of various qualities.

Some is composed of large coarse grains, interspersed with wide empty pores like a sponge; others of large grains with wide pores filled with fat; and a fourth of close grains, without any intermixture of fatness. The flesh of sheep when dressed is equally well known to possess a variety of qualities:—Some mutton is coarse, dry and insipid,—a dry sponge affording little or no gravy of any colour. Another sort is somewhat firmer, imparting a light coloured gravy only. A third plump, short, and palatable, affording a mixture of white and red gravy. A fourth likewise plump, and well-flavored, but discharging red gravy only, and this in various quantities. It is likewise observable, that some mutton, when dressed, appears covered with a thick, tough, parchment-like integument; others with a membrane comparatively fine and flexible."

Looseness is reckoned a bad quality of the flesh of sheep when living, as indicating a coarse-grained porous mutton, and as equally exceptionable with that of *hardness*: while *mellowness* and *firmness* are qualities much to be desired, as forming a happy mixture, deemed by some the point of perfection. The modern or new Leicester breed is particularly distinguished by the lightness of the offal, the bones being one-half smaller than in some other breeds, and the meat proportionably thicker; while the pelt is thin, and the head small—a thing of some consequence in most parts of England, where the Scottish luxury, sheep-head broth, is so cordially despised; but what may not be reckoned offal in the slaughter-house, will speedily show itself as such in the kitchen, by the waste of fat during the cooking process, even in England, where fat meat is so much admired; and it is surely absurd to pay the price of good mutton for tallow, when, if the latter was wanted, it could be procured at a cheaper rate by itself than when forming the better part of a dear commodity.

The only way in which overly-fat meat can at all be reckoned profitable, is in its application to the wants of the working-classes, whose bodily labour enables them to enjoy rewards which would to others prove displeasing in the extreme, and to digest and assimilate with ease food which, to the sons of sloth, would prove a poison. So far as these wants have been supplied, the attempt of Bakewell has been attended with the happiest results, as he and his disciples have placed by their well-timed exertions, much good animal food within the reach of the poor classes, which they must otherwise have gone without; while in many instances, it has driven bacon from the market, being a cheaper and more palatable commodity, which cannot but contribute to the health of the people, seeing the continued use of salted food is calculated to injure the body, and render it liable to many diseases, especially of the skin. The rapidity is various with which animals acquire fat, much depending on hereditary predisposition and the nature of the food, and much also on the state of the atmosphere, and quiet habits; rest, and a moist, rather warm air, tending greatly to the advancement of the process; some birds becoming fat in twenty hours of wet weather, and losing it as rapidly. Children that have been emaciated by diseases often resume their original state in a few days; and animals that have been famished, as hogs, after-

"The general law, as far as we are able to detect it, seems to be, that when animals are in good condition, plentifully supplied with food, and kept from breeding as fast as they might do, they are most likely to produce females. Or, in other words, when a race of animals is in circumstances favorable for its increase, nature produces the greatest number of that sex which, in animals that do not pair, is most efficient for increasing the number of the race. But if they are in a bad climate, or on a stinted pasture, or if they have already given birth to a numerous offspring, their nature, setting limits to the increase of the race, produces more males than females. Yet, perhaps, it may be premature to attempt to deduce any law from experiments which have not yet been sufficiently extended. M. Giron is disposed to ascribe much of the effect to the age of the ram, independent of the condition of the ewe."

The point of most importance in breeding is thus being trained to the discovery of the animal's defects, and to the right appreciation of such qualities in an opposite sex, as may be able to neutralize them; for it is only by care and a proper application of the faculties which have been bestowed upon us, that we can hope at the present day either for the attainment or the keeping together of money or its representatives.

[From the Germantown Telegraph.]

ON THE DISEASES OF DOMESTIC ANIMALS.

NO. I.

The following, is the first of a few essays, or rather selections from approved authors, which if approved of will be continued, on the diseases incident to some of our domestic animals. They have been compiled with the view of benefitting the farmer and throwing some additional light on this interesting but as yet little understood branch of the healing art. The first project we propose to consider is that of Glanders, but as some anatomical description of that portion of the animal in which the malady is seated, is absolutely necessary to the understanding of the subject, this number will be devoted to a consideration of the nasal cavity and its lining membranes in the horse, (omitting as far as practicable the purely technical terms,) taken from a series of lectures on Veterinary Medicine delivered in the University of London by Mr. Yovatt, in 1831.

THE NASAL CAVITY OF THE HORSE.

Its Structure. The respiratory passages open on the external air at the *nostrils* of the horse; and at the *mouth* and *nostrils* of our other patients. The mechanism of the soft palate prevents the horse from breathing through his mouth.

The bony walls of the nasal cavity are composed of the nasal, the superior and anterior jaw bones, the *æthmoid*, the palatine bones, and the vomer: and it contains the convoluted portions of the *æthmoid* bones, the superior and inferior turbinated bones, the lachrymal duct, and the infra orbital canal.

Let us briefly describe each. First observe the nasal bones in the horse, occupying the greater part of the face. We find them connected

externally, with the frontals posteriorly: the lacrymals laterally and posteriorly: the superior maxillaries laterally and along the middle part of the face: and laterally and interiorly with the process of the anterior maxillary, received between them and the superior maxillary. Along the medium line of the face is the nasal stuture which unites them to each other. Within they are connected by the cartilaginous partition and the posterior turbinated bone.

Observe the form of the nasals—broad and rounded above, tapering to a point below, the curve being on the outer and lower edge, and the edges by which they are united together constituting a straight line from the frontals to the nose. Together they have been said to bear no slight resemblance to the heart on playing cards.

They are vaulted over, convex without and concave within, forming the crown of an arch. In the heavy draught-horse the nasals so unite as to constitute one tolerably regular and perfect arch; in the blood-horse the corner of each nasal is narrower, and they form two little arches with a depression between them along the suture. In either case two objects are effected, strength and lightness: the arched roof gives strength to a part exposed to injury from accident or brutality, and that with as little weight as possible, for the head being suspended from the long lever of the neck, a very small additional weight here would act with great mechanical disadvantage.

The nasal bones pursue their course down the face, in some horses, in a straight line; in others there is a slight prominence towards the upper part, while in a considerable number a depression is observed a little lower down.

Of this line as an indication of Temper.—Of the horse with straight profile much cannot be predicated, he may be good or bad tempered, but is not often either to any excess. The one with a prominent Roman nose will not possess his comparative share of either the intelligence or the courage of the ancient illustrious proprietors of this projecting organ, but he will be an easy, good tempered kind of beast, hardy, ready enough to eat, not quite so ready perhaps to work: he may be made to do his duty without any cruel urging, but he will have little pretensions to either speed or blood. On the other hand a depression across the centre of the nose, generally indicates some breeding, especially if the head is small, but it is occasionally accompanied by a vicious, uncontrollable disposition.

There is another way, however, in which the nasal bones more certainly indicate the breed: viz. by their comparative length or shortness: There is no surer criterion of a well bred horse than a broad angular forehead, prominent features, and a short face; nor of a horse of little breeding than a forehead, small features, and lengthened nose. The comparative development of the head and face indicates, with little error, the preponderance of the animal or intellectual principle.

Structure of the Nasal Bones in the Horse. Observe the manner in which the nasal bones are connected with the neighboring ones: see their strangely intricate morticed connexion with the frontal bones above. This gives a firmness of

attachment between these bones, which no human ingenuity could have so skilfully devised. A separation of one from the other is almost impossible. Here strength is principally wanting. The parts most concerned with the sense of smell lie underneath. Here the blows of brutal violence will most often fall, or should it fall lower, and the bone should yield, it would act with the increased power of a lever, in separating the frontals from the bones above.

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THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's Improved Cylindrical Straw Cutters, of various sizes, adapted for horse or manual power. The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, has rendered them the most effective Straw Cutter in this country—they are so constructed as to be capable of cutting corn-stalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realise a profit by feeding to his cattle his corn-stalks, which would otherwise be lost. These machines are self-feeders, the knives of spiral form, and act on a bed-steel, in such a manner as to cut with great ease and despatch; the sizes are as follow, viz:

20 inch box, suited to horse or water power, capable of cutting 100 bushels per hour.

14 inch box, suited to manual or horse power.

11 inch box, suited to manual power, and will cut 600 bushels of straw per day with perfect ease. This size is of sufficient power for the wants of the generality of Maryland farmers.

de 27

ROBERT SINCLAIR, Jr. & Co.

POINTERS FOR SALE.

A thorough bred Pointer Slut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper.

no 15

4t

FRESH CABBAGE SEEDS.

THE SUBSCRIBER now offers for sale a superior lot of EARLY YORK CABBAGE seed growth 1835, it is of the Dwarf Scotch or short stalked variety, and well known among growers as the best and earliest heading. Also early BULLOCK'S HEART, LARGE YORK or HARVEST, London BATTERSEA, Cape SAVOY, Crispe's FLAT DUTCH, &c. &c. all of which are fully tested to vegetate finely and produce superior heads.

aug 30

Light near Pratt-st. whf.

CONTENTS OF THIS NUMBER.

Congratulation on the New Year—Repeal of the duty on wheat—Resources of Ohio—Notice of a communication in the Germantown Telegraph on the produce of the ruta bage—Mr. Huntington's defence—Notice from Mr. Whitmarsh—and his defence—Mr. Whitmarsh and the Genesee Farmer—large Hogs—Improvement of the breed of Sheep (concluded)—On the diseases of domestic animals—prices current—advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	—	7 50
CORN, yellow,.....	bushel.	87	90
White,.....	"	83	85
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 50	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
Super How. st. in good de'd	"	10 50	—
" " wagon price,	"	10 25	—
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 00	7 50
Kiln-dried Meal, in hhd.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	7 00	8 00
Timothy (herds of the north)	"	3 25	3 75
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" " water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 50	8 50
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	50	55
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 25	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	—	125
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
ground leaf, ..	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 25
Red, best,.....	"	2 00	2 05
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	—	42 1/2
" " in hhd.	"	39 1/2	—
" " wagon price, ..	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling, ..	"	2 00	—
Wool, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do,.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15-2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,..... do.....	"	—	15
Middlings,..... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	1 87	1 94
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1,..... No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virginia 1
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	3a	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... do 1 1/2
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,.....	do	Bank of the Valley,..... do
Salisbury,..... 5 per ct. dis.		Branch at Romney, 1
Cumberland,.....	1	Do. Charlestown, .. do
Millington,.....	do	Do. Leesburg,..... 1
DISTRICT.		Wheeling Banks,.... 2 1/2a3
Washington,.....		Ohio Banks, generally 3a3 1/2
Georgetown,.....	Banks, 3.	New Jersey Banks gen. 1 1/2a2
Alexandria,.....		New York City,..... 3a
PENNSYLVANIA.		New York State,.... 2 1/2a3
Philadelphia,.....	1a	Massachusetts,..... 2a2 1/2
Chambersburg,.....	1	Connecticut,..... 2a2 1/2
Gettysburg,.....	do	New Hampshire,.... 2a2 1/2
Pittsburg,.....	2a2 1/2	Maine,..... 2a2 1/2
York,.....	1a	Rhode Island,..... 2a2 1/2
Other Pennsylvania Bks. 1 1/2a2		North Carolina,.... 3 1/2a4
Delaware [under \$5].... 3a4		South Carolina,.... 3 1/2a4
Do [over 5].....	2a2 1/2	Georgia,..... 3 1/2a4
Michigan Banks,.....	6a	New Orleans,..... 6
Canadian do.....	6a	

DUTCH BULBOUS FLOWER ROOTS.



The increased desire and spirit exhibited the last season to cultivate Flowers and other ornamental plants, has induced us to obtain from Holland an assortment of Tulips, Hyacinths, and other Bulbous Flower Roots.

Those now on hand are just received, and are particularly large, strong and of the finest kinds. They consist of the following, viz.

- 150 sorts double and single Hyacinths
- 75 do Early Bizarres, Bybloem, and double Tulips
- 20 do single and double Narcissus
- 5 do Crocus
- 14 do superb Amaryllis at 25c. a \$10 each
- 8 do Crown Imperials

Also, Gladioli or Sword Lily, Iris, Arum Dracunculus or Dragon Plant, Anemone, now Drops, &c. &c.—And early next spring we will offer for sale a superb collection of Double Dahlias, consisting of 200 named sorts, inferior to none in this country. Also, Jacobian Lily, Roote, double Tuberosa, Tyger Flour and other delicate Bulbs.

ROBERT SINCLAIR, jr. & CO.

Catalogues of Bulbs and directions for planting will be furnished on demand. Light near Pratt street whf. no 29

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE.

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the *Morus Multicaulis*, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1-2 to 4 feet—the 2 feet and 1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited.

ROBERT SINCLAIR.

A DURHAM BULL.

THE editor of the Farmer and Gardener, Baltimore, has for sale, in this city, a beautiful young bull 2 years old, of the Improved Durham Short-horn breed.—He is red and white, beautifully marked, and of great beauty of form and points.

Baltimore, Dec. 27, 1836.

3t

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener.

no 15

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 *Morus Multicaulis* trees, one and two years old, which he will sell at \$25 per hundred.

Balt., Dec. 13. EDWARD P. ROBERTS, Editor Farmer & Gardener.

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verily with his sire.

Price, \$500.

All letters upon the subject must be post paid.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid.

oct

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 37.

BALTIMORE, MD. JANUARY 10, 1837.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JAN. 10, 1837.

We were presented some days since by Mr. Thomas Whitmarsh, of Scituate, Massachusetts, with a skein of sewing silk, manufactured by him, which for brilliancy of lustre, beauty of color, fineness and evenness of twist, was equal to any imported silk we ever saw. Indeed, we do not think that a more beautiful article could be fabricated in any country.

While on this subject it may be well to acknowledge the receipt of a skein of sewing silk made by a lady of Alabama, and which, though it cannot compare with the beautiful article from Scituate, is as a first experiment a highly flattering testimony of its fair maker's skill, and we sincerely hope that her excellent example may find its way to the favor of every homestead and cottage in our land.

Mr. George Beltzhoover, of our city, weighed a few days since a calf raised by him which was got by his half Durham and Devon bull out of a 7-8 Durham cow. The calf is only three months old and weighed 337lbs. This is indeed, a most extraordinary young animal, and will, if pushed forward in its growth, make a noble creature. Mr. Beltzhoover also weighed the mother of this fine calf and found her weight on the hoof 1300 pounds.

THE FARMING INTERESTS, AND THE SURPLUS REVENUE.

As this is the period when our respective state legislatures are generally in session, the occasion seems peculiarly proper to call the attention of those bodies to the propriety of adopting in each of the several states a law for the promotion of the interests of the agricultural community. The gross sum coming into the state treasuries,

collectively, is about forty-six millions of dollars, which will give to each member of the confederacy a very handsome addition to their respective revenues—and as this surplus has been in a very great degree collected from the agriculturists of the country, they being the largest portion of the consumers—it is but proper that the state governments in appropriating it to objects of state use, should recollect that the worthy class of society we have alluded to, should not be overlooked. In the old states, this is more especially proper, because from the condition of the lands in many portions of them—worn-out by a long-continued course of exhausting cropping as they are—their proprietors need some stimulus to animate and encourage them to adopt a different and meliorating system of husbandry.

We may possibly be met in the onset by the question:—Shall government be called upon to pay men for attending to their own interests?—but to this question we have a ready answer. We wish no such thing: what we desire is this. We want the several states to lay the ground-work of state agricultural prosperity: we want them to grant such annual appropriations, from the funds which will be coming into their respective coffers from the surplus revenue, as will be sufficient, to establish in each state:—

1st. A pattern farm, at which there should be employed a good practical farmer, sufficiently enlightened to avail himself of all the new lights and improvements in husbandry.

At which experiments should be made of the relative value of the various kinds of manure; of the quantity proper to be used; of the respective durability of each kind; and the peculiar adaptation of each to particular soils.

Experiments should also be made of the several kinds of farming implements, and the relative degrees of their usefulness tested.

Experiments should be made in the feeding of stock, so as to establish, upon data to be relied on, the cheapest and most economical method of feeding, whether regard be had to beasts of burden, to the fattening of animals, or to the productions of the dairy.

On this pattern farm, there should be establish-

ed Mulberry and Sugar Beet plantations. These should be conducted on scales sufficiently large to test the practicability not only of each culture, but of the making of silk from the cocoons, and sugar from the beets.

Both these branches of husbandry are, in our estimation, of deep concern to the country, whether we consider them with regard to profit, or to their moral and physical influences upon the country. It is known that, owing to a long course of impoverishing culture, a very large portion of the land in the old states is in that condition of utter poverty as almost to deny to the husbandman even the hope of remuneration. To bring such land into a state of fertility, it is equally well known, will require the expenditure of much means and the pursuit for some years of a judicious system of rotation of crops, if the ordinary objects of culture are adhered to. But by devoting a portion of each farm to the Mulberry culture, to that amount will the agriculturist be relieved from all expense for improving the soil, as it is a well established fact, that the poorest lands in Italy and France yield the best and most beautiful silk, its elasticity and lustre being infinitely superior to that which grows in rich ground. Here then is an object of the very first moment to the country at large, and more especially to those whose misfortune it may be to be the owners of worn out land, because every acre of the poorest soil, which may be appropriated to the mulberry culture, will be found, after the fourth year, to yield more clear profit than four times its quantity of the most fertile land which may be cultivated in the ordinary branches of husbandry now pursued. Indeed, we have satisfied ourselves, after a full and candid investigation of the subject, that above five hundred dollars of nett profit, per year, may be realized from an acre in the mulberry culture, if the business be pursued with intelligence and energy. If this profit be so large, it may be asked, Why do not agriculturists adopt it at once? Why should they need any stronger stimulus than their interest? To the first question we answer, that many of our most intelligent and enterprising farmers are entering into it; and to the second, it may be replied, that when men become wedded through a long course

of years to any particular habits, or modes of doing business, it is a difficult task to throw either aside. Besides, it is equally difficult to get those who for half a century have been reaping from six to twenty dollars an acre, to adopt the belief that above five hundred dollars can be realized from the same quantity of ground. But if *practical results* be present, to illustrate the truth of the assertion, then, indeed, would they prove perverse, if they did not make the effort to improve their condition. Reasoning thus, our mind comes to the conclusion, that as the wealth of every state consists in the aggregate of the individual wealth of its citizens—that as its honor, fame and renown are the offsprings of the physical, moral and intellectual capabilities of her people—we say we come to the conclusion, that it is the business of a state to foster and protect all such branches of industry as promise to advance the prosperity and welfare of its citizens, and when so important a one as that which we now advocate can be promoted at so inconsiderable a cost, we say that the duty of extending protection becomes imperiously necessary and proper. Let us suppose, for instance, that at this pattern-farm ten acres only should be set apart for the mulberry culture; these ten acres alone, after four years, would yield the state a very handsome interest for the whole outlay, besides demonstrating to the satisfaction of all, the practicability and profitableness of this department of agricultural industry, and the same quantity of land appropriated to the *Sugar Beet* culture would be sufficient to test its advantages.

2dly. There should be established in some central location in each state an *Agricultural school*—say that it shall be attached to the pattern farm, and form a part of it. At this school a course of lectures should be delivered, in which the application of chemistry to the purposes of agriculture should be shewn; the principles of agricultural science generally should be taught and enforced. Each county should be entitled to send a given number of scholars to the school and farm, who, as a consideration for the advantages derived at the institution, at the intervals when they were not attending to their duties at the lectures, should perform the work on the farm,—forming then, as they would, the laboring force of the institution, they would derive both practical and theoretical knowledge, and thus become acquainted with every part of the duties of an agriculturist, and be enabled when they returned to their respective homes to prosecute their labors with enlightened economy. From the best calculations we have been enabled to

make, we believe that if the mulberry plantation should be increased to 30 or 40 acres, it would, after the interval named, more than support the whole establishment. How incalculable would be the advantages to be derived from an institution of the kind, placed in the centre of a state, sending forth its hundreds of youth every year to all parts, well skilled in all the knowledge, imbued in the science of, and possessing a practical acquaintance with, every branch of the business of the husbandman.

3dly. The states should, severally, annually appropriate a sufficient amount of money to be expended under the direction of a General Agricultural State Society, in premiums, embracing those objects thought best calculated to advance the interests of agriculture. Such an appropriation would eminently tend to urge the husbandman onward in the course of improvement, and while, from the smallness of the sums requisite for this purpose, they would not be felt as burthens upon the state treasuries, it would add to the wealth of the several states; for there is no greater truth, than that every improvement made in the capabilities of a soil to produce, increases the aggregate wealth of states.

An appropriation for similar purposes should be made to each county, with a view of organizing County Agricultural Societies, who should form component parts of the General State Society. With the details of those Societies it is not our purpose to meddle; but would urge the propriety of their being established, from a consciousness that the interests of agriculture, the good of the country, and individual welfare, would be promoted thereby. If we cast our eyes to the Eastward, where almost every county has its *association*, its *fair*, or each its *exhibition*—where the farmers from all parts of each county meet together, become acquainted with each other, exchange their views, impart and receive information—if we look there, and see the influence which similar institutions have exerted, we cannot for a moment doubt the utility of this branch of our recommendation.

In Massachusetts, the legislature with a view of encouraging the formation of Agricultural Societies, have passed a law which authorises the treasurer to advance to such societies, a sum equal in amount to what may be raised by the individual contributions of their members. This munificence of the state has already exercised a most wholesome and salutary effect throughout all parts of the state. Let us suppose that similar appropriations were to be made in each of the

other states of the union,—would not the same benefits arise? Would not a spirit of improvement be infused into every section of our country? Most certainly such would be the effect of the paternal care we desire to see extended to the great community of American Agriculturists.

Before we conclude we would remark, that we have no selfish or contracted views to be answered in what we recommend, and while we make these suggestions with a view of benefiting agriculturists, we should be happy to see liberal appropriations made for the purposes of *General Education*, and objects of *internal improvement*; for we hold it that, without the blessings of education are diffused through our land, liberty itself will have but an indifferent tenure on which to rest its hopes for perpetuity,—and while we would cheerfully lend our aid in the building up of a system which should carry the school-master into every neighborhood, we are equally desirous of furthering the construction and completion of rail roads and canals, believing that every dollar thus judiciously laid out, adds to the individual and public wealth of a state.

For the "Farmer and Gardener."

AN ESTIMATE OF THE COST AND PROFIT OF A GAMA GRASS LOT.

Mr. Roberts :—Having on a former occasion presented you for publication a few practical remarks on the Gama Grass, the results of my continued experiments since, have been so satisfactory that I cannot forbear offering you again something on the same subject, headed as above. But before making my *estimate*, I beg leave to again relate my manner of planting the sets, and my experiments till the present time.

The ground I previously prepare as carefully as for any grain or hoed crop; and, if necessary, *make rich*. The surface being level, I run opening furrows, of moderate size, two feet apart. I then, with a short handled hoe in one hand, receive single plants with the other hand from a child or small boy, carrying them in a basket, and insert each plant about a foot and a half forward of another. I insert as follows:—The longest roots of any plant are laid in the furrow towards me, as I progress, and are covered, as well as a part of the perpendicular stem held in my hand, by drawing dirt with the hoe. I press this covering of the roots with my foot as I advance.

A part of my lot of 3-4 of an acre was planted last spring a year. Of the balance, some this time a year, and the rest last spring. The first planted season before last, was worked with the cultivator and hoe three times. The growth was very luxuriant, but chiefly remarkable for spreading or stooling out. The outer blades of the spreading tussocks grew so horizontally as to induce a fear that the grass would never all grow

erect enough to be easily mowed; but such fear was agreeably disappointed the past season. An erect and dense set of blades, five and six feet high was presented; while the stems bearing seed were much higher. As my object was to obtain seed, (deeming the seed of the second year's growth preferable,) I cut a few times only a small part of this. My cattle showed a remarkable fondness for the product in a green state. The rapidity of growing up or renewing itself, fully answered expectation. The sets of this part of my lot are planted three feet apart on each way, and have now nearly taken possession of the ground so as to exclude the growth of every thing else.

The hoe was used some last spring and early part of the summer among the plants, to eradicate what weeds and other grass appeared. But I calculate in the coming season, it will need little or nothing of this labor. The other part of my lot, planted the distance first named, will doubtless require (and it has had so far) the same treatment; and it promises to produce the same results, unless it be excepted that, planted nearer, it will in less time, take complete possession of the ground. I have seen it recommended by some to part the sets one foot and a half each way, instead of two feet or any other distance. I prefer two feet drills, because I consider the cultivation easier this width than nearer, and the cost of the sets (eventually to cover the ground at almost any distance) being less. At two feet distance each way, (rejecting fractions) 10,890 sets are required for an acre. At two feet by one and a half 14,520 are necessary; and at one and a half feet each way, 19,360. The cost of sets vary at different places or parts of our country. By an advertisement in the "Ohio Farmer" I noticed they sold in Ohio at five dollars per hundred. But in making our estimate we will take the price stated in Mr. Robert Sinclair, Jr.'s catalogue, viz: two dollars per hundred. The cost of land, labor, manure and the like are very different in various places. But we will assume the items of cultivation according to the information we possess; and so far as they differ in any given place the differences of result can easily be estimated.

The quantity of ground we assume for cultivation is an acre. The cost and profit of a half or quarter is an easy deduction. As the greatest excellency of this grass is that of a lot for soiling or hay, near a farm yard, some such lot as the last named quality is very suitable for any one to begin with. The beginning can be made by sowing seed, and afterwards taking sets from the tussocks, or by procuring the roots; while the latter method, besides less trouble, is the gain of advance at least a year.

Say then an acre set apart for a Gama Grass lot, is worth, or made worth by manuring,

Cost of putting it in good tilth by ploughing, &c.,	\$60 00
At two feet by one and a half, or 14,520 plants at \$2 per hundred,	290 40
A man and a boy two days transplanting, at \$2 per day,	4 00
Three times cultivated, at \$2 a time the first season,	6 00
	366 40

Interest on this sum, or on \$365 40 for a year at 6 per cent,	21 92
Cost first year, or cost,	387 32

In making this estimate of the cost at the termination of the first season I omit any item of product, although it is often considerable, or as much as would arise from the ground set in any other kind of grass. Indeed, it may be observed that the products, with no untoward circumstances in its cultivation, may be considered a year ahead of my calculation; that is, five tons the first year and so on.

But to proceed with the estimate; say the second year, the acre yields 5 tons of hay, at \$20 per ton,	\$100 00
Cost of two hoeings, say	\$2 00
Cost of cutting and airing the hay, or of feeding the green grass to cattle, at \$2 per ton,	10 00
Interest again, say same,	21 92
	33 92
	\$33 92

Clear profit the second year,

	\$66 08
The third year yield, say 20 tons, at \$20 per ton,	\$400 00
Cost of securing advantages of same,	\$40 00
Cost of 10 loads of good compost manure, applied as a surface dressing,	10 00
Interest on original outlay,	21 62
	71 92
	\$71 92

Clear profit the third year,

	\$328 08
The fourth year yield, say 30 tons, which at \$20 per ton is,	\$600 00
Cost of securing advantages of same,	\$60 00
Cost of manuring and scarifying with a drag harrow,	20 00
Say interest again,	20 00
	100 00
	\$100 00

Clear,

The last year named may be considered a sample of succeeding ones. For although under the best soil, climate and management, 60 tons per acre have been yielded; which according to the estimate just made would be \$1,000 clear annual gain per acre; yet this yield is extraordinary; and the half is the safer calculation—As 100 bushels or more of corn per acre have often been produced; yet 50 is the better calculation not to endanger disappointment in efforts for a great yield.

An observation or two more before I close. Although this plant is very hardy and will grow after almost any keeping or exposure, yet it is advisable to plant early in the spring, rather than in the fall. Some few I planted fall a year, were killed by the uncommonly severe winter. But after taking sufficient root I find no severity of weather will destroy it. Having carefully observ-

ed this extraordinary grass in its natural growth, as well as under cultivation, I venture the remark that it is not suitable for a wet soil. Although fond of spontaneous growth in what we here call low grounds, yet I have always found it on ditch banks, or on spots comparatively dry. I know a gentleman in this state who procured a large number of sets and transplanted them in a wet or marshy place—they came to nothing; and he forthwith made an unfavorable report of the cultivation of the Gama Grass, as some did a number of years since, in the state of Virginia, respecting the effects of calcareous manure. They put large quantities of marl on their poorest gullied spots of ground, which like a man ready to perish by starvation, and glutted by a full meal, was deprived, for a season, of all apparent life or fertility. They consequently declared calcareous manure worse than nothing.

In short, whatever may be said by those disposed to be ultras in almost all matters of peculiar interest, and who, by a re-action peculiar to their minds, are apt to denounce as unjustly as they may have extolled extravagantly; or however disappointed any may have been who expected to reap where they had never sown, or who expected very large and continued products of this grass without the necessary cost and pains taking; it is conceded by all, in the middle, southern, or western states, who have experimented sufficiently, or long enough to test its merits, by proper management the yield of Gama Grass is enormous, far beyond that of any other grass; and that its qualities for soiling or hay when cut or cured in the right time or manner, rank it as a first rate provender for horses or cattle.

As far as I can learn, this grass is gaining friends constantly in all the aforesaid parts of our country.

A very intelligent gentleman of my acquaintance resident in Alabama, whom I met with lately, while on a visit to this state, informed me that a relation of his, a judge Murphy, living near him, had had thirty acres cultivated with the Gama Grass, and so satisfactory was the result as to pasturage and other purposes, that his neighbors were induced to enter largely into its culture.

Not long since I saw a flourishing Gama Grass patch at the residence of the Hon. Willis Alston, a late member of Congress from this district, but who on account of advanced age has retired from public life.

He is acknowledged by all to be a very judicious, enterprising farmer. On inquiry from him I was informed that according to his experiments the growth and use of this grass had fully answered the high expectations he had been led to entertain of its excellencies. I have introduced the more evidence as to the great superiority of this grass, because the result of my estimate, or \$500 clear gain from an acre, after four years culture, may appear surprising to some not fully apprized of its worth; and permit me to add, because I have lately noticed in agricultural periodicals, sentiments or insinuations tending to discourage the spirit of improvement in some branches of agriculture. Now it is not surprising that there should be ignorant croakers (as they may be called) who, opposed to all the improvements they rank under "book farming," plausibly argue to let "good enough" alone; like the man going

to mill with a stone in one end of his bag, across his horse, to balance the corn in the other; alleging that his father did well under that practice, and that he might do the same. But it is unexpected to me that apparently well informed intelligent men should directly or indirectly endeavour to discourage any important item of American culture. For instance, that any should insinuate, (as a late anonymous writer in the "Farmer and Gardener,") that 200 gallons only of wine could be calculated on as the produce of an acre in America under the grape culture, and that too, in the face of undoubted evidence that 800 a 1000 or more, had often been produced. On some future occasion I may pursue this subject or offer you some comments on such pieces. But to return from this digression, and to conclude, I would observe, that I am sanguine in the belief, from all the information I can obtain, as well as from my own experiments, and that of others I have witnessed, that the culture of the Gama Grass will disappoint no reasonable expectation of the most profitable return for cost and labour.

Yours, &c. with due respect,
SYDNEY WELLER.

Brinkleyville, Halifax Co. N. C. }
Dec. 29, 1836. }

OBSERVATIONS

RELATING TO THE PLANTING, MANAGEMENT, AND CULTURE OF FRUIT TREES AND PLANTS.

Having been frequently applied to by persons about to procure trees and plants from the Nursery, for instruction how to plant and manage them, and this happening often at a time when the pressure of business rendered it very inconvenient to give the information required; and as the success of planting trees depend much upon the treatment they receive after they leave the nursery till they have passed over the first summer,—I offer the following observations for the use of those who are about to plant, and have not had as much experience as myself:—

SEASON OF PLANTING.

The delight peculiarly attached to spring in the conduct and management of our rural concerns, may be supposed naturally to have a strong influence in governing the mind of many, in making choice of the vernal season, it having become the season the most generally adopted for engaging in this interesting branch of improvement, while it is sufficiently evident, that the weight of experience will be found in favor of planting in the fall, especially in those parts of the country subject to severe droughts; as trees planted in autumn are less liable to suffer from this cause, than if planted in the spring.

When we consider how very short our spring is, we ought to plant our large trees and large shrubs in the fall, and open weather in winter; for the necessary vegetable and flower gardening, transplanting flowers, herbs, and other small articles, that would be in danger of being thrown out of ground, if transplanted in the fall, by frost, will be as much as most people will be able to accomplish during our short spring. On this subject there is much truth in an assertion of that shrewd scientific writer, Wm. Cobbett, where I

think he says in some of his writings, "a person in America would hardly think of there being any spring, the winter being so soon succeeded by summer heat." Our autumns are mild and so pleasant as to be the admiration of most European visitors, affording us the opportunity of planting from the 15th of October to hard frost, which seldom interrupts transplanting in this latitude before the fifteenth of December. But if other business should interrupt fall planting, large trees and shrubs may very safely be planted in the spring from 1st of March (sometimes earlier) to the fifteenth of April, and many small matters, and all the evergreen plants much later in the spring, it being much the best season to plant those last.

ARRIVAL OF THE TREES AT THE PLACE OF THEIR DESTINATION.

Immediately on the receipt of the trees from the Nursery, have the bundles carefully opened, and have a trench dug deep enough to receive the roots below the surface in a compact manner, with the bodies of the trees in a slanting position, then fill in some fine mould on and among the roots of the trees, and water them, both roots and mould, till all is very moist, and cover all up till preparation is made for planting, which ought to be done before the trees arrive—another excellent way to preserve trees is to plunge the bundles of trees, especially the roots, into water, where they will keep safely for a long time.

METHOD OF PLANTING.

The holes for planting should be dug at least two and a half feet diameter, and about two spits or eighteen inches deep, casting around the lower spade-full, and using only the top one for planting the trees, which, if insufficient, use the surrounding top soil, or other equally good or better, brought from elsewhere for the purpose; mixing any sort of manure when planting is considered injurious, but may be usefully applied around the trees as a top-dressing. Before planting, trim off the bruised parts of roots, and trim the tops of trees freely, leaving them as light as possible, preserving merely the form of a head; shortening the branches, especially the leading shoot, is considered injurious.

Before the trees are set in the holes, shovel in some good mould, in order that the tree may not be planted more than two inches deeper than they stood in the nursery, and spread the roots of the trees equally around on the said mould; in filling up the hole, care should be taken to make the earth fine, in order that it may run in among the roots of the tree, which may be promoted by gently shaking the tree as it is thrown in—water the roots well, then fill the hole up level with the surrounding ground; drive in a strong stake on the north-west side, and fasten the tree to it by a band of damp straw, passing it several times between and around the tree and stake, so as to keep it steady and prevent the wind from chafing it; in dry weather, during the first summer, the trees ought to be watered occasionally—once a week will be sufficient if done plentifully, so as effectually to wet the whole space occupied by the roots; some half rotten litter spread around the tree during the summer, would be useful in

preventing the rays of the sun and the wind from dissipating the moisture—but it should be removed in the fall, as it might be a harbor for mice during the winter, who would be apt to injure the trees by feeding on the bark and roots.

ROBT. SINCLAIR.

[To be continued.]

[From the Western Farmer.]

ON TRANSPLANTING.

There is no operation more important to the agriculturist than that of planting out fruit trees; because, if properly performed, the benefit of the operation are for himself and for his posterity. Hence the damage of introducing improper practices founded upon unsound principles, in planting.

Having observed in your November number of the Western Farmer, some "Notes on Transplanting," copied from the New York Farmer, recommending the planting out of trees without lopping off any part of the top or branches—and apprehending that the reasoning in favor of that practice is incorrect, and might mislead, to their injury, the confiding and inexperienced, I beg leave to offer a few observations on the subject.

The author of those "Notes," it appears to me, reasons badly, when he draws an argument in favor of his new theory, from the fact of the greater success in planting a young tree "with its limbs and roots entire," than "the larger one with the system of decapitation practised upon it." He infers that the difference arises from the amputation of the branches—whereas it proceeds from the greater loss of the roots, in digging up the larger, than the young tree. In removing a young plant, it is quite practicable to retain a much larger proportion of the extremities of the small fibrous roots, adapted to the intromission of the plant, than of a large tree. There can be no doubt that the roots are more essentially the life sustaining members of plants than the branches—therefore, when a tree (small or great) is removed, the chance of its living depends more upon retaining a due proportion of its most essential members.

The soundness of theories may sometimes be tested by pushing the principles on which they rest to their extremes. Let us see whether the theory here controverted can stand this test.—Plant a young tree with its branches and roots entire. It will live—cut off a branch, it will live—cut off several, it will still live—nay, cut off the whole, leaving only the stem, and it will not only survive, as a thousand instances have proved, but being sustained by the roots, it will put out new branches and will flourish.

Plant another tree with its branches and roots entire—try the same process of amputation on the roots, and ere you reach the last root, the branches will wither, and the tree will decline and die.

An argument in favor of the new theory is attempted to be founded on a supposed analogy between vegetable and animal life. "But (says its author,) would any person in his senses think of cutting off a child's arm because it had the misfortune to lose its foot?" Certainly the author of the notes, in this question, loses sight entirely of the supposed analogy. The food of an animal is not constituted an organ to receive

through its pores nourishment for the sustenance of the body, as the roots are of a tree. The stomach of an animal is this organ. Now let us suppose the stomach to be wounded or impaired so as not to be able to perform adequately the functions of receiving, preparing, and furnishing the body a due proportion of food. What is the consequence? Why, by an invariable law of nature, the bulk of substance to be supported, must be reduced, the body and limbs fall away and dwindle, sometimes almost to a skeleton.—But when the stomach recovers its tone, and performs properly its functions, then the body and limbs begin to recover, and finally assume their wonted size and fulness. So when the roots of a tree have been reduced or impaired, to a degree which leaves them incapable of supplying adequate nourishment for the whole tree, body and limbs, the same law of nature ordains, that a portion of the substance to be supported, must be reduced—the limbs wither, dry, and decay: and who ever yet saw a dry dead twig, restored so as to vegetate?

As then, in the cases supposed, art is incapable of reducing the bulk of the animal, but nature is competent both to reduce and restore—as art is capable of reducing the bulk of the tree, leaving only as much as can be supported by the appendant root,—and as reduction, of the bulk to be supported, is indicated in both cases when the sustaining organs are impaired, it would seem that the analogy is clearly in favor of trimming off a portion of the limbs, so as to leave the top of the tree proportioned to the remaining root.

But further—is not this new theory entirely at war with the system of pruning? done for the double purpose of preserving the tree, and improving the fruit, a system which has stood the test of ages, and has the sanction of experience,—the best guide to young agriculturists.

But facts are the best arguments in these matters. About 30 years ago I transplanted a pear tree into my garden. It was 7 inches through, dug up in December, in freezing weather. To save it I trimmed off most of the top, so much as to admit of its being carried into a cellar to preserve it for the night from the frost. Next day it was carried a mile and planted. It is yet a good bearing tree. About ten years past I transplanted a bearing Junetling apple tree more than half grown, cutting off most of the top.—This year it bore the best and largest apples of any Junetling tree in my orchard.

Some four or five years past a neighbor of mine transplanted from the forest to his yard a very uncommon and beautiful tree, bearing berries—desirous of saving the top, he trimmed off none, and the tree died.

Such facts could be advanced without number. S.

Silk Reel.—The grand desideratum for the farmer and for general use—a perfect silk reel—constructed upon so simple a plan, that every body will wonder why it has not always been in use, has been attained. These reels may be had at \$6 a piece, and it is believed they will ensure the home supply of silk—that they will be to the silk manufacture what the power loom was to the cotton, and ensure its triumph. The difficulty

heretofore has been that the reel has been so complicated and costly, that farmers, &c. have not been able to reel the cocoons on their farm, and by remaining on hand, or if carried away, they have been damaged, and their value thereby diminished, if not destroyed. The simplicity and economy of this machine, will enable almost every family in the country to avail themselves of its advantage. Orders for their manufacture received at 137 Broadway.—*N. Y. Com. Adv.*

LIME SPREADER.

The difficulty of making an uniform distribution of any given quantity of lime on an acre of ground, and the injury experienced by laborers engaged in the operation, have long been felt by the Agricultural community, and we are, therefore, happy in believing that both these inconveniences have been obviated by the invention of our ingenious townsman, Francis H. Smith, Esq., who we believe has succeeded in so constructing a cart that any given number of bushels of either stone or shell lime may be equally spread over the entire surface of a field of any dimensions. His cart has been submitted to the test of practical experiments upon the farms of several of the gentlemen in this vicinity, and as we learn, gave the most decided satisfaction in every instance. The last experiment is thus flatteringly spoken of by several of our most extensive and intelligent landholders, and from our personal knowledge of the accomplished inventor's acquaintance with mechanics as a science, we have no doubt it will receive the approbation of the entire farming and planting interests:

LIME SPREADER.

Having this-day witnessed at the Orange farm, the operation of F. H. Smith's machine for spreading lime, we cheerfully unite in giving our opinion of the result. The shells were thrown into the cart direct from the kiln. These were sufficiently ground up and distributed with uniformity over the land as the cart was moved along. We are of opinion that no manual operation could do the work so well. The quantity per acre, judging merely from observation, in the three several degrees exhibited to us, was about 50, 100 and 200 bushels. It is evident however, that the quantity may be regulated at pleasure. This experiment was made with shell lime. One of the undersigned has with the machine covered seven acres with stone lime, with great expedition and to his entire satisfaction.—We are of opinion that it is equally adapted for spreading ashes, marle or any friable manure.—We are so well pleased with the machine that we have each of us ordered one from Mr. Eastman.

J. W. PATTERSON,
JAMES SWAN,
ROBERT GILMORE, Jr.
S. W. SMITH,
WM. DONNELL.

Baltimore, 29th December, 1836,

J. S. Eastman has now put twelve of the above machines in hand which will require six or eight weeks to complete. Part of them are already engaged; those who wish to have it in time for operating in the Spring, are advised to leave their names at his Agricultural Warehouse in Pratt street.

The cost of the machine, including the patent right, is \$100. To apply the machinery to a wagon or cart \$45. In five minutes the machinery may be detached, and leave a useful plantation cart.

TOBACCO PLANTERS' CONVENTION.

Proceedings of the Convention of the Planters and Growers of Tobacco, convened in the City of Washington, on Tuesday, the 3d day of January, 1837.

The Convention met in the chamber of the Common Council, which had been politely offered by the authorities of the city, and was organized by the appointment of NICHOLAS STONESTREET, Esq. of Charles county, Maryland, as President, and WM. T. WOOLTON, Esq. of Prince George's county, as Vice President. Thomas F. Bowie and Henry Brawner, esqs. were chosen secretaries, and Mr. Cyrus Kelly, door-keeper.

In consequence of the inclemency of the weather, and the short notice given, there was not as full an attendance of delegates as was desired, but a very respectable number appeared, and proceeded to business.

A communication on the subject of the Tobacco trade, accompanied with a circular and statement in relation to the exports of Tobacco, addressed to the President of the Convention, was received from Messrs. Riley and Arminge, of Philadelphia, which was read.

On motion of Wm. T. Woolton, the following resolution was then adopted:

Resolved, That the purposes for which this Convention have assembled are of the highest importance to those states of the Union in which Tobacco is cultivated as a staple crop, and that under existing circumstances, arising as well from the inclemency of the weather as from the limited publication of the notice given, a full representation from all the States interested in the subject could not have been reasonably expected.

Resolved, therefore, That when this convention adjourn it adjourn to meet again on the fourth Monday of the present month, in the city of Washington, when a fuller representation may be expected to attend.

On motion of the Hon. Danl. Jenifer, it was

Resolved, That a committee of three be appointed by the President to ascertain the quantity of Tobacco exported annually from the United States to foreign ports; and the increase or decrease of the same from the year 1792 up to the present time, and also what amount of duties are imposed on the same by foreign governments, and that they report to the convention at its adjourned meeting, together with such facts as may be collected calculated to promote the objects of this convention.

The committee under this resolution consists

of D. Jenifer, Col. W. T. Wootton, and Tho. F. Bowie.

On motion of Thos. F. Bowie, esq. it was *Resolved*, That we respectfully invite the co-operation of all the tobacco-growing states of the Union in the objects of this convention, and that they be requested to send delegates to the same at its adjourned meeting, to be held at the city of Washington on the fourth Monday of the present month.

On motion of the Hon. Daniel Jenifer, it was *Resolved*, That the thanks of this Convention be given to Messrs. Riley and Arminge, of Philadelphia, for the highly useful and interesting circular relating to the exports of Tobacco, &c. politely transmitted by them to the convention.

On motion of Thomas F. Bowie, it was *Resolved*, That the thanks of this convention be tendered to the Mayor and City Council of Washington, for their politeness in offering to the convention the use of the council chamber.

The convention was then adjourned to the 4th Monday of the present month.

NICHOLAS STONESTREET, Pres't.

THOS. F. BOWIE, } Secretaries.
HENRY BRAUNER, }

From the Nantucket Enquirer.

EXHIBITION OF SILK GOODS.

A sort of fair was holden at the establishment of the Atlantic Silk Company on Thursday and yesterday, which was visited by between two and three thousand persons—all of whom expressed their surprise and gratification at the perfection of the works, and the beauty of the products. Among the various articles offered for inspection, we have only time to enumerate the following:

Raw Silk—Samples of the kinds imported by the Company from Bengal, Canton, Smyrna, Naples and Calabria respectively—some of the skeins measuring when opened, near 30 feet in circumference—the winding of which required the construction of reels especially for this purpose: Samples of American Silk, reeled in Wilmington, N. C., in Worcester Co. Mass., at New Bedford, by J. Rotch, esq., and in Nantucket—The three latter specimens were decidedly the best, and were indeed of a quality superior to any others exhibited.

Cocoons—Specimens of different kinds, mostly produced in this state, among which were noticed some which were perfectly white, others varying from a greenish yellow to a deep orange color. One lot, very splendid, and of extraordinary size, from Rochester, Mass. attracted much notice, being probably the largest and best ever exhibited in the United States.

Cloths—Samples of silk cloths intended for handkerchiefs, woven in the gluten. These comprised specimens of the fabrics made in July last, being the Company's first attempt, and of those now in course of manufacture. The astonishing improvement made in the course of a few months, was obvious at a glance. White and Nankin colored Velveteens, of silk warp and cotton filling, for vestings, pantaloons, &c. very stout, and displaying all the lustre and high finish of goods composed entirely of silk. Here was also a piece of handkerchief-goods, sent hither from Spitalfields, Eng. as a specimen of the fabrics woven in that place by hand-looms, from

a certain quality of stock, a lot of which was imported at the same time: lying with it was a sample of the goods manufactured in this mill by power-looms, from precisely the same stock. The great difference in favor of the latter, excited the admiration of every observer.

Finished Goods.—These consisted mostly of Silk Aprons and Handkerchiefs—the latter of almost every conceivable pattern, and varying, from pure white, with a neat pencilled border, to hues of great brilliancy—some comprising six or eight gorgeous colors and dazzling figures intermingled. These articles being on sale, were rapidly bought up—most of the visitors feeling desirous to possess a memento of the early establishment of this important branch of industry upon our island. We noticed an eager preference for the white sort, which, unluckily, constituted but a small proportion of the whole number. Among the handkerchiefs were two placed in contrast—one woven in July, the other in October—showing a wonderful advancement of the art. Also, a beautiful handkerchief, woven by hand loom, the silk of which was raised, reeled, thrown and manufactured by Mrs. A. Brooks, of Scituate, Mass.; the whole machinery used in the several processes, we understand, having been made in the family of Mr Brooks.

The above colored and stamped goods were all printed by Mr. J. W. Halliday, of the Boston and Lynn Printing and Dying Co., and were manufactured under the superintendence of Mr. Lloyd A. Waite, agent of the Atlantic Silk Co. The construction and operation of the manufacturing apparatus, the product of Mr. Gay's inventive ingenuity, excited great interest. The medal awarded by the New York Mechanic's Institute, was also presented for examination; it bears a characteristic device, and the following inscription—"Awarded to the Atlantic Silk Company of Nantucket, for specimens of Silk, and Silk Goods—Sept. 1836"—to which compliment we doubt not, every visitor on this occasion will cheerfully render a favorable response.

[From the Germantown Telegraph.]

ON THE DISEASES OF DOMESTIC ANIMALS.

NO. II.

The Nostrils. The nasal cavity on either side, gradually diminishes anteriorly, and at length terminates in an irregular ovoid orifice on either side. The triangular spaces between the nasal and anterior jaw bones, are filled up by elastic cellular substance and integument, which are supported by these bones, and by two cartilages on each side. The face gradually diminishes towards the lower part. The broad muzzle of the ox would be an unsightly termination of the face of the horse: in consequence of this, the internal nostrils are correspondingly small, and they seem hardly large enough for the purpose of quiet and undisturbed breathing.

But we often exact from the horse a great and cruel exertion of speed, accompanied by corresponding expenditure of animal power, and this demanding an equivilant supply of arterial blood, and that to be obtained only by a proportional admission of air into the lungs.

The apparently contracted nostril of the horse, would not admit of sufficient air to arterialise the blood and support the rapidly exhausted contractibility of the over-worked muscles, were there not a beautiful apparatus of soft distensible parts, and cartilage and muscle occasionally to expand the nostril, and admit the increased quantity of air which the animal may demand. Attached to the soft parts composing the nostrils, are several powerful muscles, which serve to expand their orifices, and there are two cartilages on each side, which while they admit of the expansion of the nostrils restore them again to their natural dimensions by their inherent elasticity.

Of the False Nostrils. These are singular contrivances. They are duplicatures of the skin, but thinner and more flexible: they are blind pouches or bags which fill up the lower side of the nostrils. Their use has never been satisfactorily explained. In some measure they give additional expansion to the nostril, but when examined more closely, they serve, and particularly in laborious breathing, and when the current of air would be exceedingly strong, to divert it from the superior passage of the nose, the peculiar seat of smell, and where its violence might be injurious, and to direct it into the lower passages whence it will more readily find its way into the windpipe and lungs.

The difference of the Nostrils in different Breeds of Horses.—All these parts are more developed, the cartilages are larger, the integument is thinner and more flexible, and the muscles more powerful in proportion as the horse is formed for speed. There is not a more marked characteristic of the blood-horse than an expanded nostril. There is scarcely a more interesting object than his dilated nostril when he is sufficiently excited but not overblown; on the contrary, there is nothing so painful to observe as the spasmodic dilatation of the nostril, and the painful working of every muscle when the horse of no blood is pushed beyond his natural power. If you have ever contemplated the sudden lighting up the countenance of the hunter, when his ears became erect, and his nostrils dilate, as he first hears the cry of the hounds, and snorts and scents them afar off, you will be aware of the beauty and use of an expanded nostril. Take the first opportunity of comparing together the confined nostril and thick skin, and quantity of cellular substance about the muzzle of the cart-horse, with the far wider and more flexible one of the blood-horse.

The inhabitants of some countries were accustomed to slit the nostrils of their horses, that they might be less distressed in the severe and continued exertion of their speed. The Icelanders do so at the present day; but there is no necessity for this, for nature has made an ample provision for all the ordinary and even extraordinary exertion we can rationally require from the horse, according to his breed and character.

The muzzle of the ox, not designed for speed, and incapable of the continued exertion of it, offers a singular contrast, especially connected with the different office of the upper lip in that animal, viz: firmly to hold the food until it is torn off, not perfectly cut, by the pressure of the

lower cutting teeth against the part which supplies the place of teeth in the upper jaw. In the sheep and swine no provision is made for speed, but it is secured in the dog, by the expanded and circular aperture in the nostril.

(From the Maine Farmer.)

REPORT OF THE INCIDENTAL COMMITTEE.

The Incidental Committee appointed by the Kennebec County Agricultural Society, having attended to the duty assigned them, submit the following report:

We have examined with a lively interest the machine for spinning and twisting silk, presented by Mr. Adam Brooks of Scituate, Mass.—Although your committee have no practical knowledge of the art of reeling or spinning silk, yet as Mr. Brooks, having provided himself with cocoons, was able to give us a practical illustration of the operation of his Machine, we were convinced of the justness of his claims to excellence, by witnessing the ease and dispatch with which it performed the business for which it was designed.

Taking into consideration the already great, still increasing, and wide spread interest that is manifested in the silk business—the importance of that business—the undoubtedly good policy of encouraging it, and the extensive usefulness of an efficient labor-saving machine, as an auxiliary thereto, we cannot but feel, so far as the funds at our disposal will allow us, to be very liberally disposed towards Mr. Brooks, and cordially recommend that there be given to him a gratuity of ten dollars.

MR. BROOKS' STATEMENT.

To the Incidental Committee of the Kennebec County Agricultural Society.

Agreeably to your request I make the following statement respecting my domestic Silk Spinner and Twister presented in operation for your inspection—with some remarks on the first process of manufacturing silk from the cocoons.

With one of my improved Silk Spinners and Twisters, such as the one presented, having three spindles, a boy and a girl twelve or fourteen years old can spin from 150 to 175 skeins of sewing silk in ten hours from the cocoons, and finish them ready for cleansing and coloring. Or they may prepare nearly as much twist in the same time. They can spin more in length than one seven knot skein, each knot containing 80 yards in length to each spindle per hour.

One person can manage the cocoons and threads while running or spinning sewing silk for six spindles, and running at the same time and moved by water, steam or horse power, and if the cocoons are of the best quality, even more than this if the threads are wanted fine for warp or filling. I think that it is evident from the nature of the case that the silk spun immediately from the cocoons into a finished thread while the gum or glue upon them is thoroughly soaked, as it is when it is running from the cocoons, will be better united in its fibre that it can be by being reeled in the common way, as has heretofore been done, before it is throwsted or doubled and twisted.

By reeling the cocoons into what is called raw silk we derange nature's perfect work; for the silk worm spins the thread perfectly even and smooth, and winds it up into a perfect ball as every good cocoon should be. This may be unwound without waste or tangling. The very great speed that may be applied to the ring spindles and travellers which I now make use of, and which seldom get out of order, even with the greatest velocity, turns the spinning from the cocoons greatly in favor of its being done at one operation, as it is not only cheapest but best and easiest. I now make silk spinning frames to contain any number of spindles to go by any power, and so constructed that the person tending the cocoons can stop any two threads when necessary while the others are going, or can set them in motion again in an instant without leaving the pan in which the cocoons are placed. One very essential property of the ring spindle is this—they may be so adjusted, as to twist the finest thread that is wanted for weaving, or the coarsest sewing silk.

With respect,

ADAM BROOKS.

Winthrop, Oct. 13, 1836.

FRENCH SUGAR BEET SEED.



THE subscribers have for sale 200 lbs. of white and yellow French Sugar Beet Seed.—This lot of seed was raised last season from French Seed of the finest quality and can be recommended as fresh and pure. Also directions on the cultivation of Beet Sugar.

In store, an extensive assortment of Garden Seeds, European Field Seeds, a large collection of Flower Seeds, and will have early in the spring a superb collection of DOUBLE DAHLIA FLOWER ROOTS, consisting of about 200 superb varieties.

ROBERT SINCLAIR, Jr., & Co.

Jan. 10, 1837.

2t.

A. P. C.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

MORUS MULTICAULIS, FRUIT TREES, AND GREEN HOUSE PLANTS.

THE subscriber, as agent for the Messrs. Prince and Sons of Flushing, N. Y. will receive orders for any of the above articles, which will be furnished in good condition and with despatch. The Morus Multicaulis, (or Chinese Mulberry,) will be furnished as follows—from 2 to 3 feet high at \$30 per 100, 3 to 4 feet at \$35 per 100, Cuttings at \$50 per 1000.—The genuineness of the variety is guaranteed by Messrs. Prince and Sons—Also, the White Florence Mulberry Trees, which differ from the common sort by having entire leaves—price, 3 to 4 feet high, \$15 per 100.

Every variety of Fruit and Ornamental Trees, Shrubbery, Flower Roots and Green House Plants, Field, Garden, and Flower Seeds, will be furnished on very favorable terms, and of superior quality.

GIDEON B. SMITH,

At the Turf Register office, corner of North and Fayette st. Baltimore

sep 17

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving bottoms	\$30,	with extra pair of knives,	\$33
11 " Permanent Bottom 28,	do do do		31
13 " " " 43,	do do do		48
13 " Revolving Bottom 45,	do do do		50
15 " " " 50,	do do do		56
20 " Large size fitted for horse-power 80,	do do		90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's Improved Cylindrical Straw Cutters, of various sizes, adapted for horse or manual power. The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, has rendered them the most effective Straw Cutter in this country—they are so constructed as to be capable of cutting corn-stalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realise a profit by feeding to his cattle his corn-stalks, which would otherwise be lost. These machines are self-feeders, the knives of spiral form, and act on a bed-steel, in such a manner as to cut with great ease and despatch; the sizes are as follow, viz:

20 inch box, suited to horse or water power, capable of cutting 100 bushels per hour.

14 inch box, suited to manual or horse power.

11 inch box, suited to manual power, and will cut 600 bushels of straw per day with perfect ease. This size is of sufficient power for the wants of the generality of Maryland farmers.

de 27

ROBERT SINCLAIR, Jr. & Co.

CONTENTS OF THIS NUMBER.

Specimen of sewing silk—large calf—the farming interests and the surplus revenue—estimate of the cost and profit of a gama grass lot—observations on the planting, management and culture of fruit trees and plants—on transplanting fruit trees—silk reel—lime spreader—tobacco planters' convention—exhibition of silk goods—on the diseases of domestic animals—report on Brooks' silk spinner and twister—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	6 00	8 00
CORN, yellow,.....	bushel.	95	1 00
White,.....	"	95	1 00
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam	barrel.	12 00	12 50
Do. do. baker's.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	—
" wagon price,.....	"	10 25	—
City Mills, super.....	"	10 00	10 25
Do extra.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 00	7 50
Kiln-dried Meal, in hhd.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	7 25	8 00
Timothy (herds of the north)	"	3 00	3 75
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	26 00
HEMP, country, dew rotted,....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 50	8 00
Slaughtered,.....	"	—	—
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	50	55
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,....	ton.	4 25	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	—	125
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 25
Red, best,.....	"	2 00	2 05
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhd.	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 to 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 24

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	2 00	2 06
CHOP RYE,.....	"	—	2 25
Eggs,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ——— No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....	VIRGINIA.
Branch at Baltimore,.....	par	Farmers Bank of Virginia 1
Other Branches,.....	do	Bank of Virginia,.....do
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,.....do
Hagerstown,.....	3a	Norfolk,.....do
Frederick,.....	do	Winchester,.....do
Westminster,.....	do	Lynchburg,.....1a1 1/2
Farmers' Bank of Mary'd, do		Danville,.....do
Do. payable at Easton,....	do	Bank of the Valley,....do
Salisbury,.... 5 per ct. dis.		Branch at Romney,.... 1
Cumberland,..... 1		Do. Charlestown, ..do
Millington,.....do		Do. Leesburg,..... 1
DISTRICT.		Wheeling Banks,.... 2 1/2a3
Washington, } Banks, 1.		Ohio Banks, generally 3a3 1/2
Georgetown, } Banks, 1.		New Jersey Banks gen. 1 1/2a2
Alexandria, } Banks, 1.		New York City,.... 1a
PENNSYLVANIA.		New York State,.... 2 1/2a3
Philadelphia,..... 1a		Massachusetts,.... 2a2 1/2
Chambersburg,..... 1		Connecticut,.... 2a2 1/2
Gettysburg,.....do		New Hampshire,.... 2a2 1/2
Pittsburg,.....2a2 1/2		Maine,.....2a2 1/2
York,.....1a		Rhode Island,.... 2a2 1/2
Other Pennsylvania Bks. 1 1/2a2		North Carolina,.... 3 1/2a4
Delaware [under \$5].... 3a4		South Carolina,.... 3 1/2a4
Do. [over 5]..... 1a 1/2		Georgia,..... 3 1/2a4
Michigan Banks,..... 6a		New Orleans,..... 6
Canadian do..... 6a		

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dying of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds. Price—per copy, 50 cents.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE.

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1-1-2 to 4 feet—the 2 feet and 1-1-2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited. se 27 ROBERT SINCLAIR.

A DURHAM BULL.

THE editor of the Farmer and Gardener, Baltimore, has for sale, in this city, a beautiful young bull 2 years old, of the Improved Durham Short-horn breed. He is red and white, beautifully marked, and of great beauty of form and points.

Baltimore, Dec. 27, 1836.

3t

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

Balt., Dec. 13. EDWARD P. ROBERTS, Editor Farmer & Gardener.

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire. Price, \$500.

All letters upon the subject must be post paid.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oc 4

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

aug 23 R. SINCLAIR, Jr. Light, near Pratt street wharf.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 38.

BALTIMORE, MD. JANUARY 17, 1837.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JAN. 17, 1837.

The *Kent Bugle*, of the 31st December, contains a most able and unanswerable article against the repeal of the duty on wheat. Its facts and arguments carry conviction to the mind of the reader, and show conclusively that its author is at home upon all those subjects connected with the operations of commerce and the interests of agriculture. No one, we think, who may read his article, but must be convinced that, while it would be the destruction of wheat growing in our country to pass the proposed measure, that the interest of consumers would be incalculably injured by it.

We have read with equal delight and edification, the speech of *Achilles D. Johnson*, Esq., delivered before the Central Agricultural Society and Mechanics Institute of Lynchburg, Va., on the 27th October last. Mr. Johnson opens his speech with a very just and philosophical view of the immense advantages to result, not only to the immediate community in which this institution is located, but to the country at large, by a proper, zealous, and well directed, exercise of its energies, and makes a glowing appeal to the better feelings and judgments of the people of Virginia, to sustain it and other kindred institutions: he takes a broad and just view of those means by which the interests of agriculture are to be promoted, and shews with great clearness and force, how intimately connected the prosperity of states and the happiness of communities are with the existence of a healthful condition in the pursuits of husbandry. While pointing out the means, by which this most desirable object is to be effected, he very appropriately enjoins the necessity of educating the youth of the country. "It is," he says, "a dictate of interest, as well as of justice,

that our young farmers and mechanics—the future umpires in all political controversy—the conservators of public morals—should be better instructed; that they should be better instructed in so much of science as will enable them successfully to compete with the products of foreign labor at our doors—and so much as with good habits, will qualify them for the duties of jurors, magistrates, legislators, and good citizens." In this sentiment we most cordially agree with him, and hope that the sound practical lessons he has, with such propriety of diction, and grasp of thought, laid down, may sink deep into the minds of his hearers and readers. The remarks which Mr. Johnson makes about the practical operations of farming, are most happy and apposite, and we shall take an early opportunity of making extracts from them; and only regret our inability, from want of space, to give his very lucid and masterly speech entire.

THE FARMING INTERESTS AND THE SURPLUS REVENUE.

We stated in our last number, that the aggregate amount coming to the several states under the operation of the law authorising the distribution of the surplus revenue, would be about forty-six millions of dollars; we find, however, by the subjoined official statement of the apportionment among the several states, that it falls considerably short of that amount. We publish it, because there is no portion of the American people more deeply interested in its subsequent appropriation, than those engaged in the occupations of farmers and planters. Although we were led into the error of which we speak by repeatedly seeing paragraphs in our exchange papers, setting down the gross amount stated by us, it will be obvious to every one that the actual sum coming into the treasuries of the states, respectively, will be sufficient to justify the state legislatures to make liberal appropriations for the promotion of the objects which we recommended to their favorable consideration. After viewing and reviewing the subject, in all its various phases, we have come to the conclusion, that a better disposition of a part of this revenue, could not be made, and that like the seed sown of old, it would

increase a hundred fold. We recommend that the several states should establish

Pattern Farms,
Agricultural Schools,
General State Agricultural Societies—and
County Societies.

Now surely, the agricultural interests require all these; and we have no hesitation in affirming, that if they were now in existence, they would be so many sources of countless benefits, not only to the peculiar body for whose immediate good they would be intended, but to the whole country at large. America at this moment presents a curious aspect to the world. Hitherto, she has been able from her surplus products to supply the old world with a large portion of their breadstuffs, but owing to the disastrous results of the fly and season the last year, she is now almost dependant on the transatlantic grain growers for her daily bread; thus in a single season have the tables been turned, and with them a large amount of what is termed the balance of trade, has been created against us. Such being the case, does it not behove those whose province it is to superintend and promote the concerns of the national husbandry, to essay a remedy for the existing evils. If it should be asked, would the organization of the agricultural institutions, we speak of, prevent the depredations of the fly, and stay the elements? We answer, if they did neither one nor the other, the happiest effects would result from their existence. While the two first, would tend to enlighten the agricultural community, the two latter would excite a spirit of emulation and generous rivalry, that could not fail to be productive of an immense sum of public and private good.

With well organized general and sectional societies, acting in harmonious concert with each other, who can form any estimate of the vast flood of information that would be thus collected and brought together. Suppose each member of these societies were required to prepare a paper upon some particular branch of husbandry—or to detail his experiments in the culture of some one of the fruits of the earth; describe his mode of preparing his ground, sowing or planting his seed, his method of culture, and to give a state-

ment of the result of his experiments. Suppose another were required to prepare a paper upon his method of preserving the articles which he might cultivate from the depredations of its natural enemies—that another should be required to furnish a statement of his manner of securing his roots from frost—another his experience in the most economical mode of feeding his stock, the manner of preparing their food and quantities given; another the best method of treating the diseases to which domestic animals are subject, the supposed cause of such diseases, preventive means to be used, as well as those of a remedial character—that another should be required to furnish an essay on the economy and management of slaves. In fine, that every one should be required to furnish some contribution to the general fund of information—and when these were thus collected, that they should be published through some common medium in each state, accessible to the whole community. We ask, can any one form even the faintest idea of the immense good which would result? Would not a spirit of inquiry and research go forth over the land, that would conduce to renovate the interests of husbandry in every quarter of our wide spread confederacy? And we would ask farther, is there any farmer or planter from the wealthy landholder to the more humble tenant, that could not furnish something to the general stock of intelligence thus to be collected and diffused? Again we ask, is there any that could not find leisure in the recess between the annual meetings of the societies, to prepare the papers in question? Is there any who would not feel pleasure in thus contributing to the general good? We will not stop to answer these questions, because their answers are too obvious to require it. Besides, who can form any idea of the intrinsic benefits which would result to the cause of agriculture, if at the annual meetings of the General Societies, a Cattle Show and Fair were held. Almost every one could furnish something for exhibition, and in all probability would find a good market for a valuable animal that he could not expect, or get at home. These annual fairs would form a kind of neutral ground, whereon old friends would see each other, new friendships be formed, and a spirit of fraternity be engendered that would tend to strengthen the very bonds of the union itself; for of all things, free periodical intercourse between citizens, tends most to excite feelings of affection and regard, and to render those feelings lasting.

We took up our pen to write a heading to the statement which follows, but have found our-

selves impelled onward, by the importance of the subject, until we have written an article, and having done so will conclude.

Surplus Revenue—The Secretary of the treasury has transmitted the following table to Congress, by which it appears that the excess of revenue over the expenses of the government amounts to \$37,468,859 97, the sum to be deposited with the different states.

Apportionment among the several states of the public money remaining in the Treasury on the 1st of January, 1837, excepting five millions of dollars.

States.	No Electoral votes.	Amount to be deposited during the year 1837.
Maine,	10	\$1,274,451 02
New Hampshire,	7	892,115 71
Massachusetts,	14	1,784,281 43
Rhode Island,	4	509,780 41
Vermont,	7	892,115 71
Connecticut,	8	1,019,560 81
New York,	42	5,252,694 28
New Jersey,	8	1,019,560 81
Pennsylvania,	30	3,828,353 06
Delaware,	3	382,335 31
Maryland,	10	1,274,451 02
Virginia,	23	2,931,237 34
North Carolina,	15	1,911,676 53
South Carolina,	11	1,401,896 12
Georgia,	11	1,401,896 12
Alabama,	7	892,115 71
Mississippi,	4	509,780 41
Louisiana,	5	637,225 51
Missouri,	4	509,780 41
Kentucky,	15	1,911,676 53
Tennessee,	15	1,911,676 53
Ohio,	21	2,676,347 14
Indiana,	9	1,147,005 92
Illinois,	5	637,225 51
Arkansas,	3	382,335 31
Michigan,	3	382,335 31
		\$57,468,859 97

A LARGE IMPORTATION OF STOCK.

The subjoined letter, in answer to one we addressed to our patriotic fellow-citizen, *Rezin D. Shepherd*, Esq., will show that he has imported into this port from England, 5 short-horned heifers, and one bull calf, 6 Ayrshire heifers and a bull, 17 Dishley sheep, and 3 blooded colts—of the latter, two are fillies, and the other a male colt, 7 months old, by Priam. One of the fillies is a large three year old, a dark bay, by *Lottery*, the celebrated horse purchased a few years since by the king of France. The colt by *Priam*, is not large, in consequence of having been taken from his dam too young. He is, however, a promising young animal, and we doubt not will prove himself worthy of the high reputation of his sire. The two fillies are as beautiful specimens of the high-bred racer, as ever our eyes alighted upon. The male colt and one of

the fillies are out of a favorite mare, which Mr Shepherd sent to England to breed from, and will, we feel confident, approve themselves valuable acquisitions to our blooded stock.

We called down to see such of Mr. Shepherd's importation that he had not sent away, and were highly pleased with them. Although they bear the evidence of having suffered from the effects of their long passage, and consequent privation, they shew in an eminent degree, their high breeding. Of the blooded colts we have already spoken; and will add, that the *Ayrshire* heifers, four in number, two years old, a bull calf, which one of them gave birth to on the passage, an Ayrshire bull, 15 months old, are all beautiful creatures; the heifers possessing those sure indications of deep milkers, thin heads and necks, clean chops, free from leather, sufficiently deep and flat carcasses, with hips proportionately wide and pointed. The udder of the young mother, all circumstances considered, was as capacious as could have been expected, and we doubt not, should she, as we are sure she will, be taken care of, slopped well, milked thoroughly, and kept to the pail, will sustain the high character of that pride of Scotland—the *Ayrshires*. The bull is a beautiful clean built young animal, and we trust will do much towards improving the stock of the *Old Dominion*, whither he and the heifers are to be sent.

The sheep consist of 16 ewes and rams of the *Dishley* breed, one of the rams having died on the passage. They are, indeed, a fine specimen of the long woolled breed of British native sheep. They have suffered by the privations of a long and boisterous sea voyage; but still look every inch a breed of no mean lineage, and to be worthy of acclimation in our goodly land. Indeed, from their long fleeces, well sized forms, round bodies, and short legs, we are certain they must become favorites, as they are so well adapted to withstand the vicissitudes of our climate, and to improve those breeds among us which are *leggy*. A chart of 14 different breeds of British sheep, now before us, set them down, No. 3, as to the product of wool; No. 2, as to the average weight of the wethers, per quarter, and No. 1 as to the price of the wool. The weight of the fleece is named at 8 lbs. and that of the quarters at 25lbs.

The short-horns, and two of the Ayrshires having been sent to Mr. Beltzhoover's farm, we did not see them; but shall visit that establishment in a few days with that view.

We notice by Mr. Shepherd's letter, that among the short-horns is a bull, bred by the Reverend

Henry Berry, who, we regret to learn, has closed his earthly career, and now reposes beneath that soil, for which it was his pride and pleasure to labor and to improve while living. Among the number of English gentlemen who have distinguished themselves in the cause of British husbandry—who stood forth as shining lights in the improvement of the Stock of the land—none enjoyed a more enviable reputation than did this late learned and pious prelate. Eloquent in the pulpit, profoundly versed in the sciences, enthusiastic in his agricultural pursuits, he was at once the object of the adoration of his congregation, and an example to his farming brethren. As a breeder of short-horns, he stood second to no man in the British realm. His best eulogy is his works—and while a British heart beats with the fire of patriotism, Henry Berry will have a living monument.

We cannot close this paragraph without tendering to Mr. Shepherd, the undissembled, though humble homage of our heart, for his truly patriotic conduct, in thus munificently expending a portion of his ample means, in furthering the interests, advancing the prosperity, and adding to the resources of his country. The fame of the *Hero* may be more dazzling—it may attract more renown—but it is achieved at a cost over which humanity drops a tear, and turns away with averted eyes; for its track is marked by human suffering, and stained by human blood, and these sacrifices are often exacted by one who has no nobler motive than the gratification of unhallowed, because selfish ambition—while that which is gained by such deeds as this, being sanctified by all the nobler feelings of the heart, exerted, as they are, for the attainment of a great national benefit, is, in our opinion, infinitely more valuable; for it is the proud triumph of civic virtues gained by high and honorable means, directed to the accomplishment of purposes, which have for their object the promotion of a department of husbandry, essential alike to human sustenance and the national character—and surely if the conqueror of armies deserves to live in story, the patriot citizen, whose beneficence aims at the effectuation of an enterprise where no victor's wreath allures him onward—whose chastened ambition seeks only the good of his fellow—will merit that crown, which grateful hearts award to public benefactors.

Saturday Morning, Jan. 14th, 1837.

DEAR SIR:—I have been so much engaged that I have not had time to acknowledge the receipt of your note, requesting a list of my stock recently imported.

I only got them landed yesterday, and having been on board of ship more than sixty days, they have suffered more or less on the passage.

The importation consists of 5 short-horned heifers and one bull calf—6 Ayrshire heifers and a bull—17 Dishley sheep—3 colts.

The pedigree of the short-horns are as follows:

Sackburn, flecked, 3 years old, by Remus, dam, bred by Mr. Dunn of Sackburn Hall—Cora, roan, by Catton, dam Corinna, 2 years old—Leda, roan, by Catton, dam Daisy, 2 years old—Eleanor, roan, by a bull of Sir Charles Sorans, dam Lily by young Sovereign, 2 years old—Daisy, red and white, by Gainford, dam Caroline, by young Rockingham, one year old—a bull calf 3 months old, bred by the Rev. Henry Berry, by Warfindall, out of Minikin.

The above were purchased at Mr. Denton's sale, October 17, 1836.

The short-horns and two of the Ayrshires, are out at Mr. Beltzhoover's farm, the residue at my stable, in Frederick-st., where I should be glad to receive you at any time it would suit your convenience to come and see them.

I am truly yours,

R. D. SHEPHERD.

To E. P. ROBERTS, Esq.

We have observed a paragraph going the rounds in our exchange papers, of a *new* method invented of churning butter. The process consists in warming the *milk* when *new*, and churning the butter from it when thus warmed, instead of putting it by to make cream. The butter is represented as being sweeter and keeping longer than when made in the old method. This plan may be new in Russia, and possess all the advantages detailed; but it was followed several years since at *Orange Farm*, near our city, when that fine estate was under the management of the late Mr. Underwood; and is now extensively followed in Orange, the great butter county of New York.

CHILBLAINS.

✂ We have tried the remedy recommended by Major Noah, for curing chilblains or frosted feet, repeatedly, but without the desired effect.—The remedy consists simply in bathing the feet in warm water, till they become soft, then putting them in cold vinegar for a few moments, and going to bed immediately afterwards. As our feet are old offenders and desperate cases, they require a desperate remedy: it may be for this reason that warm water and vinegar only afforded us a temporary relief. Let others try it.

We recommend the wearing of *loose shoes*, if not as a restorative at least as a preventive of chilblains. Persons of experience have declared this.—*Salem, N. C. Chronicle.*

We have seen very distressing cases of Chilblains cured by simply bathing the affected parts with *weak solutions* of Vitriolic Acid and water: and from experience we can say, that if the stock-

ings be lined with the inner membrane which is found in the leaf fat of pork, the worst case of chilblains may be easily cured. Its *modus operandi* is the same as that of application in cases of burns; by *excluding* the air it acts as a non-conductor, and thus not only arrests the progress of, but cures the disease.

LIME—ITS USES—EFFECTS, AND MODE OF APPLICATION.

FREDERICK COUNTY.

To the Editor of the Farmer and Gardener—

Dear Sir:—You have my thanks for your prompt attention to my request on the subject of economical feeding of stock. I have no doubt that a great saving will be made by following your plan, and I shall immediately put it in practice. I live in a part of Frederick county where the lands are thin, and very little attention has been paid to their improvement. Tobacco is our staple crop, and this is raised on new land, and the system of farming here pursued, is, after the second tobacco crop is taken off, the land is tilled in corn and rye, alternately, until it be reduced so low that it will produce nothing, when it is turned out as commons. Since I have taken your paper (seeing in it so much about the improvement of lands) it has occurred to me that we would find it more to our advantage to turn our attention to the improvement of our old lands, and quit the cultivation of tobacco; attend to *root crops*, whereby we will be enabled to keep a much larger stock, raise a larger quantity of manure, and as lime is within our reach at a low price, let liming and other manuring go hand in hand in improving our lands. To do this, I at once burst the fetters that bound us to the way of our fathers, and pursue a path new in my neighborhood, and, sir, will have to trouble you occasionally for advisory aid. If, therefore, it be not troubling you too much, I would request you in your valuable paper to answer a few questions on the subject of liming, and before stating them I will give the reasons that induced me to make this request.

Last July I put on a clover lot of five acres 50 bushels of lime to the acre, I put the lime in heaps of one bushel (unslacked) in each heap; it did not suit me to plough the land before the first of September; when I went to spread the lime, preparatory to ploughing, I found that the rains in August had wet the lime completely through, and it was a kind of mortar or paste. I did not suppose it otherwise injured than that it would be difficult to spread regularly, however, after waiting a few days, and by taking a great deal of pains, we spread it pretty regularly, and turned it under moderately deep, with a middling crop of clover; shortly after this, the August number of the New-York "Cultivator" fell into my hands. My attention was called to some extracts (published in that paper) from M. Puvis' treatise on the use of lime as a manure, as follows: "Whatever may be the method adopted for using lime, it is essential that like all calcareous manures, it should be applied in powder, and not in a state like mortar, and upon the earth when not wet; until the lime is

covered up finally, all rain upon it ought to be avoided, which reduces it to paste or clots, and thus injures its effects greatly, and even more than reasoning can explain." If this be true, the good effects of my first attempt at liming is, and will be greatly injured.

I have a field of 15 acres, which was last season in rye. I wish to improve it and have bought 1000 bushels of lime, and the course I had marked out was this: I had well rotted stable manure enough to manure 5 acres well, I ploughed in October 5 acres, and hauled on it this manure and spread it; during the winter I intended to haul on and spread on this same five acres 50 bushels of lime per acre, the balance (10 acres) I meant to put 50 bushels of lime per acre, and on it to spread the manure I made this winter and spring (of course long unrotted) and plough the lime and coarse manure under pretty deep, (early in the spring) and tend the whole field in corn the ensuing season. Well, sir, in that same "Cultivator" I saw the following: "Lime always destroys to a certain extent the efficacy of animal manures, either by combining with certain of their elements, or by giving to them new arrangements. It should never be applied with animal manures, unless they are too rich, or for the purpose of preventing noxious effluvia; it is injurious when mixed with any common dung, and tends to render the extractive matter insoluble."

Davy—Now, my dear sir, if Mons. Puvis be right my first effort was injured "even more than reasoning can explain"—and if Davy be right, I shall (in the second effort) lose in a great degree the benefit of my manure by applying lime with it. I did not expect any benefit to the well rotted manure from the lime, but my expectation was, that the manure would act at once, and be the means of giving me more abundant green crops (after the corn) to turn under for the lime to act on; and as to the other or unrotted manure, I have understood from your paper, that it was a good plan to turn it under with the lime. I should therefore be pleased to have answers to the following questions:

1. Do you deem the good and valuable effects of lime materially injured by its becoming wet before it be spread and ploughed in.

2. Will lime applied with rotted manure or dung prevent that manure from acting as well as if no lime was applied with it.

3. Do you deem it a good plan to spread long manure (such as is made in your cow-yard by litter, &c.) during the winter, and lime together, and turn both under, pretty deep, if you wished to reap the greatest benefit from both in making a corn crop the ensuing season—Before answering the last question, I would call your attention to the following remark of M. Puvis—"Lime, whether alone or in compost spread dry upon the soil, ought to be covered by a very shallow first ploughing—in order that the lime in the course of tillage may remain always as much as possible placed in the midst of the vegetable mould."

This is a dreadful long and blundering letter, but you can probably glean from it what I aim at—as by getting answers to the above questions I shall be better satisfied on this subject.

With much respect I am your obt. servt.

WILLIAM H. POOLE.

Replies by the editor of the Farmer and Gardener.

With respect to the first question, viz:—

"1. Do you deem the good and valuable effects of lime materially injured by its becoming wet before it be spread and ploughed in," we have to reply, that as the great object of liming is to diffuse the powder as much as possible through the soil, there can be no question, that, to permit it to become wet and assume the consistence of mortar or paste, before being used, is to deprive it, in a measure, of a portion of its power of *immediate* action. The specific virtue of this mineral substance, as we understand it, consists in converting woody and ligneous fibres which may be present in the soil into food for plants, by exciting putrefaction, and consequently decomposition, and thus rendering substances soluble, which were, theretofore, insoluble. It must be, therefore, obvious that the best chance for the lime to perform its office will be found in applying it in as dry and powdery a state as possible, where it is spread on the surface, whether the field on which it may be applied, be a clover-ley or old grass-sward—and as the specific gravity of all mineral substances necessarily makes them tend to sink into the earth, we incline to the opinion that, to produce prompt effect, so that the succeeding crop shall derive the greatest benefit from the substance turned in, the first ploughing should be a shallow one, in order that the lime may be kept near the surface, and be aided in its chemical operations, as much as possible, by the effects of the atmospheric air.

From the case stated by our correspondent, we apprehend that, by permitting his lime to remain in the field until it became paste, he did, to a certain extent, deprive it of the capacity of performing its greatest extent of *immediate* benefit; but we are not at all prepared to advance the opinion, that he has materially lessened the quantum of its *ultimate* benefits; for we have seen old plastering, when put upon tenacious clays, where there was an absence of calcareous matter, exert the most decided benefits, not only in rendering the soil friable, but in providing food out of the long manure applied to potatoes, that is, in converting the ligneous fibres of that manure into substances which could be taken up by the delicate lacteal and lymphatic vessels of the growing plants. Sir John Sinclair, than whom we want no better authority, upon matters connected with subjects of husbandry, advances the opinion, that quick lime should not be used

to potatoes, as it is so caustic as to blister their skins; we, therefore, upon the occasion we speak of, used old plastering, which, consisting of four parts of sand to one of lime, and being applied broadcast, while the long manure was applied to the potatoes in the drill, had the effect of reducing the tenacious properties of the clay, without exerting any injurious effect upon the root crop. And we will mention the fact, that on digging the potatoes, we could discover but very few pieces of the plastering which had not become separated and mixed with the soil during the processes of ploughing and hoeing, to which the crop had been subjected in the course of cultivation.

But we would remark, that as *economy*, in the use of all renovators of the soil, should always be kept in view, wherever lime is applied, the party using it, should be cautious to observe that *method* which promises the greatest quantum of good, both mediate and immediate: and that the best plan is to plough it in as soon as spread, because by exposure to the weather its beneficial effects are jeopardized. If it be impracticable to spread and plough in when first brought into the field, the next best way of protecting it, is to drop it in small heaps, at proper distances, and give those heaps a *thorough covering* of earth, so as to protect the lime from the effects of rain.

Question 2. "Will lime applied to well rotted manure or dung, prevent that manure from acting as well as if no lime was applied with it?"

We confess we are not prepared to answer this question as we could wish; for we have no *data* accessible to us, which would enable us to speak in terms of positiveness; but in order to arrive at something like a practical result, we must consider it in connection with the context furnished by Mr. Poole's letter.

He says:—

"The course I had marked out was this. I had *well rotted* stable manure enough to manure 5 acres well. I ploughed in October 5 acres, and hauled on it this manure and spread it: during the winter I intended to haul on and spread on this same five acres 50 bushels of lime per acre."

The safe plan we suspect for Mr. P. to have pursued, would have been to have ploughed his *well rotted* manure in when he hauled it out and spread it, as there can be no question that much of its virtue was lost by exposure to the air and rain. It was when so hauled out in a state to become the food of plants without the aid of any chemical agent whatever, and had he turned

it under six or seven inches at that time, his application of *lime* to the *surface*, in the proposed quantity, either by a very shallow ploughing or harrowing, would not, we are sure, have wrought the least injurious effect. We presume that the specific action of lime—its being a stimulant—is not intended to effect a meliorating purpose upon substances already in a soluble state; but to convert insoluble bodies into a condition to be taken up by the roots of plants as food. Had he followed this course, it is not to be presumed that the lime, measurably on the surface, performing its own peculiar functions, would, in the least, have disturbed those of the well-rotted manure some four or five inches lower down in the soil; nor are we prepared to say that if he should now even, apply it before turning down his decomposed manure, that it would in the least affect it injuriously, because from its want of concentration, it could not produce those consequences spoken of by Sir Humphrey Davy—on the contrary, we believe it would prove an auxiliary, especially, as from the quantity of Rye stubble to be turned in, there would be full scope for the action of the mineral.

The *third* and last question is:

“Do you deem it a good plan to spread long manure, (such as is made in your cow-yard by litter, &c.) during the winter, and lime together and turn both under pretty deep if you wished to reap the greatest benefit from both in making a corn crop the ensuing season?”

This question is one of broad and comprehensive import, and embraces within the range of its legitimate discussion every thing which relates to the application of lime, its uses, and effects, and necessarily involves among other subjects those contained in the two first questions. We must therefore be indulged in treating the subject at large. And in order to arrive at a proper understanding of those objections which seem to have led to the propounding of the question, we shall necessarily have occasion to refer to those parts of Mr. Poole's letter that seem to have suggested it. We have in the course of our editorial labors advanced the opinion, that where lime was to be applied to a soil whether covered with a clover-ley, a vegetable-ley of some kind, or grass-sward, that it was a safe practice to spread the coarse long manure from the barn yard, and we have never seen any thing in the course of our reading, or experience, to change that opinion. Of what does barn-yard manure consist *in chief*? Of undecomposed corn-stalks, corn cobs, straw, and other hard woody substances. What is the office

performed by *lime*? As an active stimulant—as the most active stimulant which can be applied to land,—it excites fermentation and causes prompt and efficient decomposition of all ligneous substances which may come within the range of its operation, and surely if it should, as it doubtless would, convert the coarse substances we have described into a *pabulum* capable of being taken up by the growing plants, benefit of vital magnitude must be conferred upon them. What is the effect of *lime*? Is it a manure of itself? Will it act without the aid of another body? The authorities all unite in saying that it is not a manure of itself, but the *cause* of making other bodies perform that office. Then if it acts thus, it must be compared to a skilful cook, who when the viands are procured, prepares them for those guests who are to consume them; but no matter how good soever the talents of the cook may be, how rare his acquirements, unless he have the suitable *materials* he cannot grace the table with a luxurious dinner; neither can *lime* prepare food for plants, unless the *raw material* be first provided for its action; therefore, where there is neither a vegetable growth of some sort on the ground, a substitute must be provided, and what better substitute would we require than the coarse woody substances which are to be found in every barn-yard, where corn-stalks, corn-cobs, undecomposed weeds and straw are always so rife.

Were we to make our election, we should apply them in the fall of the year, and by a second ploughing in the spring bring the whole near the surface to receive all possible benefit from the influence of the atmospheric air.

The foregoing are our views upon this branch of the subject, and let us now examine the grounds which appear to have suggested the fears of our correspondent.

He quotes from Sir Humphrey Davy, the following sentences, which in the work of that enlightened author, form a part of a paragraph:

“Lime always destroys to a certain extent the efficacy of animal manures, either by combining with certain of their elements or by giving to them new arrangements. It should never be applied with animal manures unless they are too rich, or for the purpose of preventing noxious effluvia: it is injurious when mixed with any common dung, and tends to render the extractive matter insoluble.”

To comprehend Sir Humphrey, we must follow him a little further, see his reasons for such an opinion, and examine the grounds upon which he rests it.

He says:—

“I made an experiment on this subject: I mixed a quantity of the brown soluble extract, which was procured from *sheep's dung*, with *five times its weight of quick lime*. I then moistened them with water; the mixture heated very much; it was suffered to remain for 14 hours, and was then acted on by 6 or 7 times its bulk of pure water; the water after being passed through a filter, was evaporated to dryness; the solid matter obtained was scarcely colored, and was lime mixed with a little saline matter.”

This is the experiment by which Sir Humphrey comes to the conclusions before quoted, which in our opinion are not tenable, so far as the application of them to the practical operations of agriculture are concerned. We find him making an experiment with *one part* of the brown extract of *sheep's dung*, and *five times its weight of quick lime*, and because the affinity between these bodies, in this over graduated proportion of lime, is so great as to cause the brown extract to be inseparably connected with the former, when submitted to his subsequent test, of adding six or seven times its weight of pure water, he concludes that lime should never be applied with animal manures, unless they are too rich: and that it is injurious when mixed with any common dung. We most cheerfully admit, that if *five times as much lime* as there are *dung* be mixed together, that the former would destroy the latter; but who ever heard of a *compost* bearing such a disproportionate relation of lime to dung, the former being in such preparations chiefly used as an inciter to putrefaction. And we would ask, when lime is applied to the soil broadcast, in powder, how stands the relative proportions? Why from 25, 50, 75, 80 and 100 bushels of lime, to from 20 to 50 cart or wagon loads of manure to the acre, and then with these two, are mixed up a furrow of from 3 to 9 inches in depth, and will any one pretend to say that so minute a quantity of lime could exert so injurious an influence? We think not, unless he be blinded by the authority of a great name. But we do not believe that Sir Humphrey ever intended his opinion to be taken as applying to the active and enlarged operations of agriculture.—Let us test the matter by figures—100 bushels of lime on an acre of ground, is a fraction more than half a gill to the square foot, there being 43,560 square feet in an acre, and 25,600 gills in 100 bushels. Having taken our present *maximum* quantity of lime to the acre, and shewn its result, when reduced to square feet, let us see what the *minimum* will give us—25 bushels to the acre, will give us to the square foot, a fraction over 2-16ths of a gill of lime to that surface, and

surely no one will venture an opinion so utterly at variance with reason, as that that small quantity of lime spread over a surface of a square foot, with some 50 or 100 times the quantity of animal manure or dung, mixed up with a furrow half its depth of earth, could by any possible power of chemical affinity, render the extractive matter insoluble. Now suppose Sir Humphrey, instead of applying 5 times the quantity of lime to 1 of extractive matter, had put from 50 to 100 of the latter to one of the former. How then would have stood the result of the experiment? Think ye the extractive matter would have been found to be robbed of its solubility? No. Now we know that in the composition of mason's and bricklayer's mortar, that generally a much larger quantity of sand than lime is used, the precise quantity varying according to the strength of the lime; but surely we should not conclude that, because these two substances, with the addition of water, will make a *cement*, that lime should not be used as a renovator of sandy soils. We know full well, that when applied in proper quantities, its effects are most salutary indeed; giving the power of retention to what was purely a filtrating body before, and otherwise meliorating its productive capacity. But suppose we, as did Sir Humphrey Davy, on his extractive matter, put on every square foot of ground five times its quantity of quick lime, and what would be the result? Would we not make the whole surface still more cohesive than the mortar of the bricklayers and masons? And this result would be produced from the very same *cause* that brought about the effect mentioned in Sir Humphrey's experiment. *Excess* produced it *there*, and as like causes produce like effects, so would it in this. Every intelligent man knows that minute portions of the most deadly poisons may be taken into the human stomach, without producing other than good effects—opium, arsenic, and corrosive sublimate, for instance—yet increase these quantities and death is the inevitable consequence—it is the *abuse* and not the *use* of a thing which makes it either injurious or beneficial.

But let us return to the question—whether the plan be a good one, of ploughing in barn-yard manure—such as we have described—with lime?

Sir Humphrey Davy says—

“When lime, whether freshly burnt or slacked is mixed with any moist, fibrous, vegetable matter, there is a strong action between the lime and the vegetable matter, and they form a kind of compost together, of which a part is usually soluble in water. By this kind of operation,

lime renders matter, which was before comparatively inert, nutritive.”

Again he says:

“Quick lime, in being applied to land, tends to bring any hard vegetable matter that it contains, into a state of *more* rapid decomposition and solution, so as to render it a proper food for plants.”

And again:

“Quick lime, when it becomes mild, operates in the same manner as chalk, but in the act of becoming mild, it *prepares soluble* out of *insoluble* matter.”

Further on he says:—

“In those cases in which *fermentation* is *useful* to produce nutriment from vegetable substances, lime is always efficacious.”

Turning, then, from the dogmas that Sir Humphrey Davy has laid down,—that lime destroys to a certain extent the efficacy of animal manures—and that it is injurious to mix it with common dung—to the question at issue, whether it can be applied with barn-yard manure, we think we have given ample evidence from this learned gentleman's instructive pages, to prove the utility of our recommendation; for every one in the least acquainted with the component parts, which form the great whole of a barn yard's contents, do know, that there is a huge quantum of that “moist, fibrous, vegetable matter” described, by him contained therein, and which, when *dosed* with *lime* on the field, and turned in, must have its comparatively “*inert*” substances converted into “*nutritive*” bodies, so essential to the sustenance of plants, and so “*efficacious*” in their growth. And it is equally obvious, that the great mass of barn yard manure cannot become nutriment for plants until it undergoes the putrefactive process, as it is impossible that other than liquid or gaseous food can be taken up by plants. These points being settled, it follows as a necessary corollary, that it is “a good plan” to mix lime with all such bodies, in order that the ‘hard vegetable matter which they contain’ may be brought into a state of more rapid decomposition and solution, so as to render them proper food for plants.

§—We are informed that Messrs. R. Sinclair, Jr. Co., expect early next spring a large lot of GAMA GRASS ROOTS, which can be had by leaving orders at their agricultural repository and seed store, Light street. Price \$2 per hundred roots.

SWELLED THROAT OF HOGS.

A disease commonly called by this name, attacked my hogs a few weeks since, and carried

off three fat hogs before my attention was called to it. On examining all my hogs, I found about 20 had the disease. Being then an entire stranger to the disease, I made inquiry among my neighbors, but found they knew but little of it, except that it was fatal to nearly all that took it. Shortly after, I took a fat hog which had died of the disease, and skinned the throat, then cut out all of the swelled part in one large piece, and then cut it up into small pieces, at each cut finding the pores with a slightly colored water, until I cut to a gland, which was filled with a substance which looked like cheese, or white corn meal dough, and about as large as a hulled walnut. I then concluded that, if the throat of the hog was opened to the diseased gland as soon as it was found to have the disease, it might then be saved: and I have since fully proved the fact, by opening about 20 and putting into the incision a mixture of corrosive sublimate and red precipitate. In performing the operation, I lay the hog down, feel for the lump, then cut in lengthwise carefully, until I split the diseased lump, which will be known by its discharging dark blood. I then put in the above mixture, and the hog will be well in a few days. In several cases the hogs were so far gone and their throats swelled so much, that I could not precisely find the lump; I then cut a gash about three inches lengthwise on each side of the throat, as deep as I thought safe, and put in the mixture. As all have got well, or are on the mend, I am induced to believe, that if farmers would open the throats of their hogs as soon as they commence swelling, they might be cured in every instance. I would describe the symptoms, but the disease is so common that I think it unnecessary, only to state that the swelling may be discovered by examination about a week before the hog stops eating, then if not relieved, the hog lasts but a few days longer.

JOEL SCOTT,

Franklin county, Ky., Dec. 15.

We have seen it stated that flour of sulphur administered, periodically, in the messes of hogs was an excellent preventive of this disease, and from its cooling and aperient character, we have no doubt it would be found efficacious; for we take it for granted that the disease arises from obstructions in the glands of the throat, which probably spring from surfeit, a cold, or the impurity of the blood.

While we have no doubt that the plan pursued by Mr. Scott, is an excellent one, and that the operation can be performed in safety by any careful person with a steady hand and good eye, we would recommend that the hair of the throat be shaved off and a poultice made of bruised wormseed, to be boiled, mixed with mush and a small portion of oil or grease of any kind, and applied to the affected part warm, believing it would discuss the swelling nine times out of ten,—indeed, in all cases, where the *puss* had not been formed. As an auxiliary to this treatment we would exhibit a small dose of sulphur to the animal, which

should be given in warm messes of ground grain of some kind, seasoned highly with cayenne pepper; the animal to be provided with good bedding.—We have never seen this treatment tried on hogs, but have no doubt of its efficacy, as we have seen most obdurate swellings both on the horse and dog yield to its emollient effects.

[Editor Farmer and Gardener.]

[From the Germantown Telegraph.]

ON THE DISEASES OF DOMESTIC ANIMALS.

NO. III.

The Schneiderian membrane.—This is the mucous membrane lining the nose, and may be considered as presenting two surfaces, an adherent and a free one; the adherent being very firm, with difficulty separated from the bone beneath, and forming a kind of coating to the bone. This membrane is distinguished from other mucous surfaces, not only by its thickness but by its vascularity. The blood vessels are likewise superficial, they are not covered by integument, but merely by an unsubstantial mucous coat. They are indeed deeper seated than in the human being, and they are more protected from injury, and therefore there is far less hemorrhage from the nostril of the horse than from that of the human being, whether spontaneous or accidental. Lying immediately under the mucous coat, these vessels give a peculiar, and to us a most important tinge to the membrane, and particularly observable on the septum. They present us with a faithful indication of the state of the circulation, and especially in the membranes of the other respiratory passages with which this is continuous.

We lack many other auxiliaries of the human practitioner. Our patients are dumb, they can neither tell us the seat nor the degree of pain, and blunders, unfortunately for the practitioner, sometimes are never buried with the patient. We must therefore use greater diligence in availing ourselves of the advantages that we do possess, and we have some, and very important ones too. The varying hue of the schneiderian membrane is the most important of them all; and with regard to the frequent and fatal diseases of the Horse, those of the respiratory passages, it gives us almost all the information with regard to the state of the circulation, in those parts that we can possibly require.

It is the custom with most veterinary surgeons, and almost with every horseman who will take any pains to ascertain for himself the state of his sick horse, to turn down the lower eye-lid and to form his opinion of the degree of inflammation, by the color which the lining membrane of the lid presents. If it is very red, he concludes that there is considerable fever; if it is of a pale, pinkish hue, there is comparatively little danger.—This, indeed, is a very important examination, and the conclusion which we draw from it is generally true; but on the septum (or partition) of the nose we have a membrane much more continuous with the membranes of the respiratory organs, more easily got at, presenting a larger surface, the ramifications of the blood vessels better

seen, and, what is truly important, indicating not only the general affection of the membranes, but of the membranes with which we are most of all concerned.

Let the attention of horsemen be more directed to this. Day after day, and under all the varying circumstances of health and disease, study the character of that portion of the membrane which covers the lowest part of the septum, until you are able to recognise, and you soon will, and that with a degree of exactness you would have thought impossible—the pale pink hue when the horse is in health and quiet—the increasing flush of red, and the general and uniform painting of the membrane, betokening some excitement of the system—the streaked appearance when inflammation is threatening or commencing—the intensely florid red of inflammation becoming acute—the starting of the vessels from their very delicate coat, and then seeming to run bare over the membrane when the inflammation is at the highest—the pale ground with patches of vivid red, showing the half subdued, but still-existing fever—the uniform color, but somewhat redder than natural, indicating a return to a healthy state of the circulation—the pallidness approaching to white, indicating a state of debility, and yet some radiations of crimson, shewing that there is yet much irritability, and that mischief may be impending—the pale, livid colors warning you that the disease is assuming a typhoid character—the darker livid announcing that the typhus is established, and that the vital current is stagnating—and the browner, dirty painting, intermingling with and subduing the lividness, proclaiming that death is approaching. Study these things: they will be guides to your opinion and your treatment, which you can never too highly appreciate.

In the next number, we shall take up the subject of Glanders, its symptoms, etc. It is a disease of which but little is known; its cure is wrapped in doubt and uncertainty; many specifics have been proposed; each lives its day, and then dies to be renewed at some future period as a great discovery. The affection has been recognised since the days of Hippocrates, and few modern veterinary writers have given a more accurate and complete account of its symptoms than we find in the works of the "Father of Medicine."

We must pursue our course slowly and cautiously. We shall first endeavor to correct the prevailing symptoms: this may possibly lead us—this alone can lead us, to the part primarily affected, and to the nature of the morbid affection of that part, and to the cause of its affection; and these important points being settled, we may obtain a little knowledge as to the prevention of the disease, although we may be compelled to leave the remedial treatment pretty nearly where we found it.

CONTENTS OF THIS NUMBER.

Notice of an article on the proposed repeal of the duty on wheat—do. of A. D. Johnson's speech—the farming interests and the surplus revenue—a large importation of Stock—new method of making butter—cures for chilblains—Letter on the uses, effects and mode of applying lime, with replies by the editor—cure for the swelled throat of hogs, with remarks by the editor—essay on the diseases of domestic animals—advertisements—prices current.

FRENCH SUGAR BEET SEED.



THE subscribers have for sale 200 lbs. of white and yellow French Sugar Beet Seed.—This lot of seed was raised last season from French Seed of the finest quality and can be recommended as fresh and pure. Also directions on the cultivation of Beet Sugar.

In store, an extensive assortment of Garden Seeds, European Field Seeds, a large collection of Flower Seeds, and will have early in the spring a superb collection of DOUBLE DAHLIA FLOWER ROOTS, consisting of about 200 superb varieties.

ROBERT SINCLAIR, Jr., & Co.

Jan. 10, 1837.

21.

A. P. C.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,

87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving bottoms	\$30,	with extra pair of knives,	\$33
11 " Permanent Bottom	28,	do do do	31
13 " " " "	43,	do do do	48
13 " Revolving Bottom	45,	do do do	50
15 " " " "	50,	do do do	56
20 " Large size fitted for horse-power	80,	do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs.	6 00	8 00
CORN, yellow,	bushel.	95	1 00
White,	"	95	1 00
COTTON, Virginia,	pound.	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. at. in good de'd	"	10 50	—
" wagon price,	"	10 25	—
City Mills, super,	"	10 00	10 25
Do extra,	"	10 25	10 50
Susquehanna,	"	—	10 50
Rye,	"	7 00	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 00	3 75
Orchard,	"	—	2 75
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 50	8 00
Slaughtered,	"	—	—
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	50	55
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 25	—
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	—
RYE,	bushel.	—	125
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	2 30
Red, best,	"	2 10	2 12
inferior,	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,	"	45	50 28 30
Three fourths Merino,	"	42	45 26 28
One half do.	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,	"	38	40 26 28
Howard st. Flour, sales limited, receipts very light.			

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders, do.	"	—	15
Middlings, do.	"	—	15
Assorted, country,	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	2 06	2 12
CHOP RYE,	"	—	2 25
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 50	—
Mackerel, No. 1, —, No. 2	"	9 50	10 50
No. 3,	"	—	6 75
Cod, salted,	cwt.	—	—
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,	par
Branch at Baltimore,	do
Other Branches,	do
MARYLAND.	
Banks in Baltimore,	par
Hagerstown,	1/2 a
Frederick,	do
Westminster,	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton, ...	1/2
Salisbury, 5 per ct. dis.	1
Cumberland,	1
Millington,	do
DISTRICT.	
Washington,	1
Georgetown, } Banks, 1/2.	1
Alexandria,	1
PENNSYLVANIA.	
Philadelphia,	1/2 a
Chambersburg,	1
Gettysburg,	do
Pittsburg,	2a 1/2
York,	1/2 a
Other Pennsylvania Bks. 1 1/2 a	2
Delaware (under \$5),	3a 4
Do. (over 5),	1a 1/2
Michigan Banks,	6a
Canadian do.	6a

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds. Price—per copy, 50 cents.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE,

At Clairmont Nurseries, near Baltimore.

The subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1/2 to 4 feet—the 2 feet and 1 1/2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited. se 27 ROBERT SINCLAIR.

A DURHAM BULL.

THE editor of the Farmer and Gardener, Baltimore, has for sale, in this city, a beautiful young bull 2 years old, of the Improved Durham Short-horn breed.—He is red and white, beautifully marked, and of great beauty of form and points. Baltimore, Dec. 27, 1836. 3t

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,

Balt., Dec. 13. Editor Farmer & Gardener.

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire. Price, \$500.

All letters upon the subject must be post paid.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oct

SUPERIOR DELAWARE KALE SEED.

Time of sowing 20th August.

JUST received of the present year's growth a superior lot of BLUE CURLED GREENS or DELAWARE KALE seed—this seed was raised from the most perfect plants under my own inspection—A more perfect article cannot be produced—Gardeners and others will be supplied with this genuine article at \$1 50 per lb.

R. SINCLAIR, Jr.

aug 23

Light, near Pratt street wharf

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 39.

BALTIMORE, MD. JANUARY 24, 1837.

Vol. III

THIS publication is the *successor* of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JAN 24, 1837.

The subject of the proper use of Lime, as an improver of the soil, is one of profound interest to every one engaged in its cultivation, and from the anxious concern we see expressed in various quarters, we feel convinced that a spirit of inquiry has been awakened that will ultimately tend to great and lasting benefits. To us there is no proposition connected with the business of husbandry more susceptible of proof, than this—that lands which may have been exhausted by long continued adherence to a bad course of cropping, cannot be resuscitated beyond their original state of fertility, without the application of lime, or some other calcareous manures. We will go further and say,—that any soils which are not already charged with such substances, may be brought to a state of fertility far beyond their original condition by their use. Believing thus, we feel an anxious solicitude, so far as it may be within the compass of our ability, to lay before our farming brethren, all such matters as may come under our observation calculated to illumine their minds thereon. With this object in view, we have inserted in another part of this day's paper several communications from practical men, which we doubt not will attract attention. The reader of these communications will perceive that a diversity of opinion exists as to the proper quantity to be used. While one thinks he has derived the most advantage from the use of fifty bushels to the acre, another speaks highly of the beneficial effects which he had seen from the application of from two to three hundred bushels to the acre. Indeed, the best British authorities are full of instances where from five hundred to six hundred and forty bushels have been applied with success to the same quantity of land. In the midst of this diversity

of opinion, and difference in practice, as to quantity, we think the safest plan would be to use the lesser quantity; for we are decidedly of opinion that 50 bushels to the acre at a dressing, to be repeated at each interval of ploughing in a clover-ley for some two or three times, is quite sufficient for all present purposes—and here it will be recollected, that M. Puvis speaks of it as a practice which has obtained among the more judicious farmers of a part of France, to put on but 25 bushels to the acre, and repeat that dose periodically. If then 25 bushels have been found to be productive of good, certainly no one should hesitate in believing that twice that quantity would be found efficacious. We all know that one of the great obstacles to the free use of lime, has arisen from the belief that from one to three hundred bushels were requisite to be used on an acre; the expense of which necessarily deterring many persons from its use, who might otherwise have been induced to adopt it as a means of meliorating the condition of their soils. But if fifty bushels should be found to answer all necessary purposes, that objection will cease to operate, and we shall soon have the satisfaction to see it introduced into much more general use. With this brief exposition of our views, we bespeak for the communications in question the attention of our readers

Agreeably to our intimation in the last number of our journal, we visited Mr. Beltzhoover's farm, situate about two miles from the city, to the right of the Frederick road, to view those of the cattle imported by Mr. Shepherd, that had been sent thither before we called down at his residence to see them, and were highly gratified. They consisted of five Durham Heifers, one bull calf of the same breed, two Ayrshire heifers in calf, one calf of the same breed, and three fine English pigs.

Two of the Durham heifers, one a two year old, with her first calf, and a one year old, were very thin from the effects of their protracted voyage, but shewed fine points. The two year old is a noble young animal, beautifully marked, red and white, of admirable proportions, displaying

in an eminent degree the unerring indications of making a deep milker, and presenting in the whole the frame-work of a fine cow. The yearling is nearly white, with a few red spots about the neck, and is a creature of large dimensions, being now though so young and spare of flesh, nearly equal in size to most of our native cows. She is, we learn a great favorite with Mr. Shepherd's agent in England, and proceeds from a stock of much note, belonging to the late Mr. Denton, at the sale of whose effects she was purchased.

The other three Durham heifers are dark strawberry or mottled red, with white spots, and are fine models of their generous breed. The bull calf bought at the sale of the Rev. Mr. Berry's stock is a handsome red and white, and like his companions of the voyage, is every inch a Durham.

The two Ayrshire heifers have all the characteristic marks of their peculiar and excellent breed. They are in calf by an Ayrshire bull.

The three pigs of which we speak are fine young porkers. Two of them are white, the other of sandy-ground with black and white spots. The latter we think a Berkshire, and though a fine pig, cannot compare with the other two.—Indeed, we do not know that we have ever seen any thing of the hog kind, that so pleased us as did the two white pigs. The boar, in particular, struck us as being a pre-eminent specimen of his race, possessing a length of body, which is as round as a barrel, superior to any thing we have ever beheld of the same age. Mr. Shepherd's agent not having written him of what breed they were, only mentioning that they were the issue of a prize sow, he could not inform us upon that point; but let them trace their origin to what they may, they are as fine a pair of pigs as ever crossed the ocean, and we are sure that they are destined to contribute largely towards the improvement of our stock of hogs.

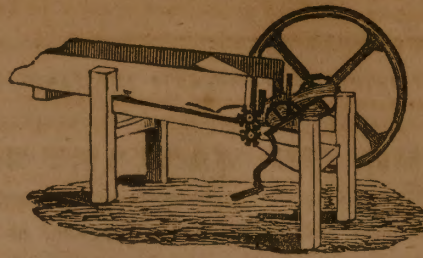
Although we were aware that Mr. Beltzhoover had an establishment in our vicinity, and from our knowledge of his character, enterprize, and becoming pride, we expected to see something fine, we confess we were not prepared to see

one so perfect in all its appointments. It does most truly reflect great credit upon his public spirit and judgment. We shall not attempt here to describe it, because from the shortness of our visit, we feel incompetent to do it that justice which it merits, and will content ourself by observing that his cattle, his stables, and his every arrangement, bespeak at once a kind and well-judging proprietor. We were highly gratified at the appearance of his milch cows, and by the bye, they are a noble set, their comfortable accommodation, the cleanliness and neatness of their stalls—and, indeed, we might say, that we were pleased with every thing except the racks, and these, we think, he should substitute by capacious mangers, and instead of feeding his hay long, that he should cut it; but the propriety, of this we shall leave to his better judgment—and as we intend, ere long to pay his establishment another visit, with a view of giving a more particular description of it, we will conclude this hasty paragraph by saying that he deserves great credit for what he has done.

We cannot, however, close this notice without observing, that the difference in the order of the heifer which calved on the passage, and those which were in calf, struck us most forcibly, and we think it worthy of mention—that no gentleman, who may contemplate an importation, should purchase a heifer or cow near calving, but should always choose those that are young in calf. No man can look on those imported by Mr. Shepherd, without at once seeing the propriety of our remark—while the young mother, from the combined effects of the passage and the suckling of her calf, is greatly reduced in flesh; her associates, who stood beside her, are in fine heart, and look as if they had borne the buffets of the storm without materially being impaired in their condition.

Fattening Chickens.—The following process of fattening chickens, we see highly recommended: Take rice and boil it over the fire in skimmed milk until the grain bursts. This food if given to chickens five or six days, it is said, will make them plump and fat enough to grace an Alderman's table.

"The Scotsman," an Edinburgh paper, speaks of an apple presented to the editor which weighed sixteen ounces, and measured 17 inches in circumference. Another apple previously sent had weighed 19½ ounces. This is indeed something for "Auld Caledonie" to brag of, and no wonder the editor says it made his mouth water to look at it; such a production would be called *considerable of an apple* even on Long Island, where the glorious Newtowns grow.—*Balt. Am.*



We have given above, a cut of a *Cylindrical Straw-Cutter*, and will avail ourself of the occasion to recommend it to the use of agriculturists generally. With its use, many of those engaged in tilling the earth are already fully acquainted, but as we conceive it to be an implement that none should be without, it has struck us that we but consult the interest of all, in calling attention to it, especially at this period when provender of all kinds are so scarce and dear. When we first commenced our little establishment, we bought one of the small Dutch cutting boxes, for the purpose of cutting the straw which we mixed with our horses feed; but upon reflection, we came to the conclusion that a great saving could be effected by cutting their hay, and in order to test the validity of that opinion, we procured of Messrs. *Robert Sinclair & Co.* one of their *Cylindrical Straw-cutters*, for which we paid \$30, and after giving this method of feeding out our hay, a fair trial, we have arrived at the conclusion, that the saving to us has been 33½ per cent. During the time that our horses have been fed on cut hay, they have been worked hard, and have still maintained their accustomed good order. We think it must be obvious to every one, that it is consonant to reason that such result should be produced, for independent of there being no loss from *wastage*, the hay thus given is in a better state for mastication, is easier digested from that circumstance, imparts more nutriment to the animal, and because of the greater facility with which he consumes it, gives him more time for rest. It must be obvious too, to every one who may have taken the pains to inform himself upon the subject, that hay when fed long from the rack, is necessarily subject to great loss, as a large portion of every mouthful which the horse takes therefrom, falls on the floor of his stable, is there trampled under foot and becomes useless for food: whereas when cut and fed from the manger all is eaten. So satisfied are we of the superiority of this mode of feeding, that were we to build a thousand stables, we would never have a rack in one of them; but would increase the size of the mangers. Should any doubt the utility and saving of this plan, all we ask of them is

to give it a fair trial, conscious that one week's experiment will make them converts to our doctrine.

We should, perhaps state, that one of these implements, worked by hand power, is capable of cutting from 300 to 500 bushels of hay per day, according to the industry and fidelity of those engaged in the operation; and surely with such facility of effecting so great a saving, no farmer or planter should hesitate to adopt it on account of the trouble; for if either should embrace the opportunity of *wet-days*, the labor of cutting his provender would not, in the least, interfere with the ordinary business of the farm or plantation.

The last number of the *Lynchburg Virginian* came to us in a half sheet, in consequence of the destruction of the office of that establishment by fire: We sympathise most sincerely with the proprietors of that excellent and gentlemanly conducted paper, and we are sure from the pleasure we have derived from the perusal of its well filled columns for a number of years, that every reader will regret the occurrence of the catastrophe, as one not only of individual, but public loss. For ourself, we can truly say our feelings have been the more acutely penetrated, because one of the enlightened conductors of that print has set an example in the improvement of the soil, which, while it must prove of lasting benefits to his state, cannot fail to endear him to every one who regards the proper culture of the earth as of the first importance to the nation.

A Large Hog.—Mr. Anthony Hoffman, of Pine Plains, New York, killed on the 16th ult. a hog 21 months old, which weighed when dressed 801 lbs. and sold for \$100.

OBSERVATIONS

RELATING TO THE CULTURE OF FRUIT TREES

[Continued.]

To promote the Growth.

It will be proper, early in the spring, to examine such trees as have been planted the preceding fall, to ascertain whether the high winds, which prevail about the time of the breaking up of the frost, may have shaken them loose; if this should be the case, it will be best to have the ground trod firmly around the tree again, as the shaking will be likely to destroy the tender roots as fast as they are put forth, and of course the tree must perish. In order to make fruit trees thrifty, and come early into a bearing state, the ground about the trees ought to be constantly kept mellow, and neither weeds, grass, or crops permitted to grow over the tree roots; and a very great improvement in the growth and appearance of the trees would be made, if a small dressing of manure was annually in the fall spread a-

round where the ends of the roots may have arrived at, and have it immediately dug in—and the young trees always thrive best when the land amongst them is constantly kept under tillage.—The following crops may be raised very suitably among them, provided every, or every other crop is manured:—Potatoes, Pumpkins, Beans, and other vegetables—Wheat, Rye, Oats, and Clover are considered injurious to the newly planted orchard. In order to destroy insects and increase the thriftiness of the trees, prepare a wash for them as follows:—To 10 gallons of strong soap suds, add 1-8th of a bushel of stone lime, and as much soft cow dung as will make the wash of a proper consistence to work with the common white wash brush—put it on the bodies, and as high on the limbs as the brush will work. Early in October or April is the best seasons to wash the trees; a white wash composed of lime and water is often used to good advantage, but is not so safe or useful to the trees, as the above; especially where the trees are covered with a rough bark, and consequently receives too large a share. Soft soap or potash prepared so as to be put on with a brush, is better than either of the above. Persons becoming acquainted with the beautiful, thrifty appearance the above washes will cause the trees to have, as far as the brush touches, will seldom neglect having it done at least once a year, while the trees are young, destroying a large quantity of insect's eggs, and makes the bark so smooth as but to afford few hiding places for them, and at the same time increases the growth of the trees.

Trimming.

Every spring the trees ought to be examined, and trim out any branches that appear as though if left on, might cross or crowd the main branches of the head of the tree, and on looking at it, a judgment must not only be formed from present appearance, but how it would appear three or four years to come, for if a limb should be left on for that length of time, and afterwards have to be cut out, would be a great loss of nutriment, that would otherwise have gone into the main branches, and would have made the tree that much larger; also trim off all the branches that hang too low, or ought to be cut to make the tree balance, and much of the nutriment of the tree will be saved, by trimming off all the superfluous sprouts of spring growth, early in June, with the additional advantage of preventing a recurrence of them, as the wounds would immediately heal over, and would very much diminish the winter or spring trimming. A young orchard may safely be trimmed any time during the winter, when the proprietor can attend to it best, especially if done at least annually, thereby rendering the amputation of large limbs unnecessary.

Apples—Soil, Aspect, &c. proper.

Any lands that will produce good crops of Indian corn will produce good crops of Apples, whilst sandy land, stiff clay, and wet land is unfavorable, as the Apple blooms late in the spring. The aspect is of less account than for most other fruits—however, if protected by native woods, or plantations on the north and west, would be the means of ripening the fruit with a higher flavor, and being protected from high winds would

not be so subject to have the fruit blown down. To make an orchard productive, it must be kept rich, especially after it commences bearing.

Pear Trees.

Pear trees whilst young require nearly the same treatment and same soil as recommended for the apple—but as our climate is rather warm for this valuable fruit, which in rich ground and under good culture, frequently grows too rapidly, producing soft spongy wood, and in my opinion renders the tree less capable of withstanding the various changes of our warmest months, and hence impart the cause of the disease called the fire blight.

To counteract the effects of our climate, I would recommend planting in a cold north-eastern aspect, defended by lofty trees on the south-west, at a sufficient distance to prevent the roots from coming into collision with the Pear. And after the tree has put out buds, head it down to the lowest eyes or buds, and once a year shorten the main branches in March, or early in June, in order to prevent the tree from towering high; in other respects trim sparingly, leaving limbs sufficient to absorb the superfluous sap that would be sent up by the roots of the tree, which has not been docked like the top—by which means the tree becomes strong, the wood firm, short jointed and hardy; and before the tree may be expected to commence bearing fruit, set the land in grass under them, not to be mowed, but be left on the ground during the hot months to keep it cool. Should it happen that after all the above care has been taken, a limb should be attacked by fire-blight, which may readily be perceived by the leaves changing color, immediately on such a discovery, proceed to amputate the diseased limb, cutting a few inches below the diseased part, as the only way to prevent a further spread of the case, pare off the edge, and cover the wound with soft cow dung or brown paint, if nothing better is handy.

ROBERT SINCLAIR.

[To be Continued.]

(From the Farmers's Register.)

Letter from Cyrus Jacobs, Esq. dated Spring Grove Forge, Nov. 8, 1824.

J. BUEL, Esq.

Dear Sir—In answer to your queries about lime, I have to inform you that until within the last two or three years, it was but little used as a manure in this neighborhood; it is now more used, and on all soils; some farmers put on first from thirty to forty bushels per acre, and in two or three years afterwards, about the same quantity; the general opinion is here, it operates on corn and clover the soonest. It is put on the land in different ways here; but generally the land is first ploughed, and the lime hauled out of the kiln before it has slacked, and put on in about one bushel in a heap; and as soon as it is slacked, spread immediately, and harrowed twice over and then ploughed in; and in dry weather it often happens that we have to haul water to slack it. Others have the ground all ready for seeding, and haul the lime and put it on the same way, and as soon as slacked, spread it and harrow it twice over, and then sow the seed and

harrow it twice over again, which mixes it very well and keeps it near the surface of the ground: this method I think the best; both the above methods are here used. I have had put on my land this season between seventeen and eighteen thousand bushels of lime, and have put it on in both the above ways, and have not put on less than sixty or seventy bushels per acre, nor more than one hundred. I have no hesitation in saying that I have experienced fifty per cent. benefit on corn and grass; in our wheat crops I cannot yet so well judge the benefit, not having limed my land more than two years past, but have not the least doubt but I shall be amply repaid for all the cost and trouble of the lime. Our lands here are nearly all limestone land, and of good quality, and will bear more lime than land of a poorer quality; but it is the general opinion that the poorer soils agree best with lime, and receive the most benefit from it, and no doubt it is the case. Some are of the opinion that limestone land is not much benefitted with lime, particularly for wheat crops, though that is not my opinion; and should I be spared a few years, I shall be better able to judge, as I have for these last two years been liming my land on a tolerably large scale; and have not the least doubt but I shall be fully recompensed for it, both in my wheat crop and other grain; in corn we have already experienced the profit.

I remain, dear sir, very respectfully, your humble servant,

CYRUS JACOBS.

Letter from Daniel Buckley, Esq., dated Salisbury, Pa., Dec. 19, 1824.

J. BUEL, Esq.

Dear Sir—I received your favor of the 6th of November, requesting information as to the effects of lime upon various soils, the methods of application, its duration as a manure, on what crops most immediately useful, and on what remotely, the quantity applied and at what intervals repeated, the price, &c. A want of confidence in my ability to answer these queries suitably, will compel me to confine my remarks principally to the sphere of my practice and personal observation.

The land which I cultivate, according to M'Clure's treatise, is transition, composed of white and yellow clay and lime-stone, much of the latter appearing on the surface, intermixt with flint. Upon this soil I have made a liberal use of lime, ever since the year 1790, and think I have been well rewarded for the expense and labor, by the increased value of my crops.

The method of applying the lime, which I have adopted in common with my neighbors, is, in the first place, to plough up a sod field with a strong team, in the spring or fall, harrow it the way it is ploughed, and mark the field into as many squares as you intend to put on half bushels, say 100 on the acre, which will bring the furrows about 20 feet apart each way, and require 50 bushels to the acre. This quantity I have found to be most profitable. When the lime is burnt, and as soon as it is cool enough to handle, it ought to be hauled on the land already marked, and a half-bushel deposited in the centre of each square, in as compact a heap as pos-

sible. If water is convenient, I prefer to slack the lime immediately, rather than to wait for rain, as it becomes finer and can be more evenly spread. As soon as it has slacked, it is immediately spread and well harrowed. This method I prefer for Indian corn, barley, oats, rye, and potatoes. On all the above crops I have experienced a great benefit from lime the first year after its application. With potatoes I add about 15 two-horse loads of barn-yard manure to the acre, before planting. A second liming is often given, and much approved of, after an interval of three or more years. This amalgamates better, and can be more intimately mixed with the soil.

There are good farmers who differ as to the quantity of lime that is most profitably applied. Some say 60 bushels on the acre, some 70, and some more. I have applied 100 on an acre of limestone land, at a dressing, but have not been able to discover any benefit from using it thus freely, nor any injury, except in the loss of lime.

Wheat seldom receives any benefit from lime until the second or third year after it has been applied, except it has been mixt in a compost of yard manure and earth. This method is much practised in the lower counties of this state; though not by good farmers until they have applied lime as the basis of amelioration. By this management they have raised their lands from an impoverished state, produced by injudicious cropping, to such a state of fertility, as I am informed, to enable them to fatten a bullock of six hundred weight on an acre, and to cut grass from the same acre sufficient to winter another.

Sundry soils are greatly improved by the use of lime. I lately purchased some of that kind, which was originally covered with chesnut timber, and was called mountain land. It had been cleared seventy years; but lying a distance from the farm buildings, had never received manure, but a dressing of lime. This land I have repeatedly farmed since I owned it; and although to appearance it seemed to be almost a *caput mortuum*, with the aid often or twelve four-horse loads of the gleanings of a yard of a public house, it has produced as much, and as good wheat, rye, oats, timothy and clover to the acre, as any land in the township in which it lies. I consider the liming which it had fifty years ago as the principal cause of its fertility.

It is a general opinion amongst good farmers that liming should be repeated every ten or fifteen years, and that the increased crops richly compensate the expense. It matters very little how it is applied, if it is evenly spread after it is slacked. If suffered to air-slack, or to lie after it has been water-slacked, it re-imbibes carbonic acid, which the fire had expelled, becomes lumpy, and is more difficult to be incorporated with the soil. Some spread it upon the sod and plough it under, and think they have as much profit from it in this way as in any other. When thus applied it powerfully contributes to decompose the tougher fibres of the sod, and to convert them into nutriment for the crop.

The price of the lime is governed by the price of wood, the distance the stone has to be transported, the construction of the kiln, and the experience of those who burn it. Where wood costs but one dollar a cord at the kiln, where the

stone has to be carted not more than the fourth of a mile, the kiln well constructed, to contain 800 or 1,000 bushels, and the workmen understand their business—the lime can be sold at eight dollars the hundred bushels at the lime-kiln, and leave to all concerned a fair compensation for their labor and expense. I have paid 25 dollars per hundred bushels, delivered on the field, at ten miles distant from the lime-kiln, and think I could not have applied my money to better advantage. This was applied to land of the old red-stone formation. The produce has far exceeded my expectation. I however, make use of barn-yard manure and plaister of paris; the former at the rate of ten four-horse loads to the acre; and the latter at the rate of a bushel and a half on rye, timothy, and clover. Yet I consider lime as the *real mother* of all the sweet grasses.

I am, with sentiments of esteem, your obedient servant,

DANIEL BUCKLEY.

P. S. I have omitted to state, that on land which has been much exhausted, or has naturally a thin soil, we do not apply more than 30 or 40 bushels to the acre, at the first dressings; but in three or four years afterwards, the liming may be repeated to advantage, to the extent of fifty bushels on the acre.

D. B.

Letter from William Chapman on the use of Lime in Agriculture.

Sir—Agreeably to your request, I now communicate to you my experience in the use of lime in husbandry.

1st. While with my father in England, I assisted to set out large quantities of lime as a manure. It was applied to all soils upon his farm, viz: moss or turf, clay, black or yellow loam, and sand loam. We put on from two to three hundred bushels to the acre. I have seen land that before liming was so poor, that it would bear nothing but bent and moss, after liming, give the heaviest crops of oats and wheat for ten years; and I have no doubt it would have produced good crops for ten years longer, with suitable alteration of grasses.

2d. I have set out lime on my farm in this country, on stiff clay and on loams, in considerable quantities. It has been particularly beneficial on the clay. I had one field which would produce nothing of consequence until I limed it; after which, I sowed it with rye and grass seeds. Both the grain and grass were good, and it is now covered with a fine rich sward. I have used lime for several years, and my confidence in its benefits have not at all been diminished.

3d. I am satisfied that lime is a preventive of smut in wheat, rye, oats, and barley, if the seed previous to sowing, is steeped in brine or lime water, and rolled in fresh slacked lime. And I am equally satisfied it will destroy the insect, or Hessian Fly in the young grain, if sown in the morning when there is a heavy dew on the crop. Some years ago I sowed some spring wheat, and as I had no salt at my farm to make brine, I took stone lime and slacked it in a tub of water; and when the water was as warm as I could bear my hand in, I put in the seed, skimmed off the light matters which floated, and continued stirring the

grain for half an hour or more. The grain was then sown; and when it came into its third or fourth leaf, although it looked well, I sowed fresh-slacked lime over the field while the dew was upon it. The crop was very good—while all my neighbors except one, lost almost their entire crop of spring wheat. This one happened to be passing while I was sowing the lime on my young grain, and at my suggestion, went home and sowed upon his own also, and I understand, had a good crop.

In the spring of 1823, I had about three acres of winter wheat, a portion of which looked very yellow when the snow went off. I directed this to be sown with lime; but on visiting my farm two weeks afterwards, I found it had not been done, and the whole field assumed a like yellow appearance. I had the whole immediately sown with lime; the grain immediately improved in appearance, and I had a tolerable crop, though not so good I think, as I should have had, if the lime had been sown two weeks earlier.

Mr. Ebenezer Cady, of Duanesburgh, at my suggestion, adopted my method last spring, of steeping his seed, rolling it in lime, and sowing fresh slacked lime upon his young grain. The experiment was so successful, that this wheat was considered the best in the county.

5th. I have applied lime successfully upon cucumbers, and other garden vines, to protect them from the yellow bug; taking care to repeat it as often as the wind or rain blew or washed off that which had been before applied. Half a bushel of lime, mixed with the earth of an anthill, will effectually destroy a colony of these insects.

Your friend,

WILLIAM CHAPMAN.

Albany, Jan. 6, 1825.

[From Hoveys' Magazine of Horticulture.]

ON THE CULTIVATION AND MANAGEMENT OF THE RASPBERRY. By J. W. RUSSELL, Superintendent at Mount Auburn.

Raspberries are a very useful fruit for the table, for preserving, for making jams, &c., and continue a long time in bearing, and are raised from suckers and layers. They should be planted in a piece of ground by themselves, at the distance of about six feet from row to row, and four feet apart in the rows, either in angles—with three plants, or singly; but as this is altogether a matter of taste in the planting, the operator may please himself, for either of the methods will do equally well; all that is necessary is, not to neglect giving them the distances proposed. The ground should be first well dug and manured, before the raspberries are planted: in selecting them, always choose the strongest and finest growths that spring up from the sides of the old plants, where they have been standing for some years; or encourage the strongest plants that come out betwixt the rows after digging, which should be done annually. In digging the ground the roots are frequently cut with the spade, which will occasion a great number of small plants to come up; of these select the strongest and finest, and hoe up all superfluous ones: some cultivators prefer laying down some of the strongest outside growths in the month of April, as by the following autumn they will make

fine roots, and may be planted out in the plat of ground where they are intended to remain. These will not be so liable to throw up suckers, as those which are produced from suckers.

In the planting out of fresh plats of raspberries preference should be given to damp or moist weather, as the roots are very tender, and liable to be hurt when exposed to a dry air. If, however, they are planted in dry weather, take care to moisten the roots with water, and cover them with old bass mats, or leaves, while they remain out of ground. In planting, open a trench with the spade along the line where the suckers or layers are to be set out; cut off a portion of the small fibrous roots, preserving all the stronger ones; put them into the trench, and cover them with some earth; then have them well watered, and throw the remainder of the earth over them, letting them remain till you have finished planting the whole ground. Then, where you first began to plant, go over and tread the ground with your foot along each of the trenches, and in the same direction as you planted, and level all the ground smooth and even—taking off any stones or rubbish that may be left on the surface. In dry weather the plants should be watered two or three times a week, till they have taken root. It will be necessary to put stakes to the strong growing sorts, to tie them up to, which will prevent their being broken by the wind, or beaten down by the rain.

In November, or before the ground freezes up, the old bearing wood should be cut out, being of no more use, as the fruit is always produced from the wood of the preceding year; therefore, take out all the wood that bore fruit this year, and select four or five of the most vigorous and strong shoots of this year's growth, to bear fruit the ensuing season: shorten the tops of each, according to their strength; and the most sure way of preserving them through the winter is to lay them down in straight rows, covering them over about six or eight inches deep with the soil. As a great many of the stronger canes are frequently broken in laying them down, I would recommend the placing of four or five spadefuls of soil close to the stool, so that the shoots can be easily brought over it in a rounding position; this will be found to answer the purpose so well, that seldom if ever any breaking will be made in laying them down.

In the spring they must be uncovered as soon as the frost leaves the ground, and immediately tied up to the stakes—remembering that delays are dangerous.

An old plat of raspberries will continue in bearing six or seven years, by which time a fresh plantation should be made to succeed them. The young plants will bear some fruit the first year, and come into full bearing the second after planting. If they are suffered to remain longer without renewing than the time specified, they will degenerate, and bear *small fruit*: frequent hoeing and cleaning between the rows is a very necessary process, and should not be neglected. The following are the sorts best worth cultivating:—

Nottingham Scarlet Smooth Cane,
White Antwerp,
Red Antwerp,
Smooth Cane Double-bearing,

Large Red,
Barnet,
Early White,
Large White, &c. &c.

Messrs. Thomas and Wilham Mason, Charles-town Vineyard, have a collection of fine sorts for sale.

I am yours, &c.

J. W. RUSSELL,

Mount Auburn, Cambridge, Dec. 12, 1836.

MR. COOKE: I send you the result of an experiment which I made the past season upon seeding potatoes. The land, manure, and culture, was exactly the same.

- | | |
|---|----|
| 1. One very large potato in each hill, | 17 |
| 2. Two quarters of a very large potato to a hill, | 14 |
| 3. Two halves of a common sized one | 11 |
| 4. Four small ones to a hill, | 13 |

I have reduced the quantities to decimals, that the relative proportions may be seen at once. I repeated the experiment in another part of the field, but with the same result. *Large whole* potatoes produced the *best and most abundant* crop. In one row I put two large potatoes to a hill, and the yield was a trifle less than where I put only one large one to a hill. If I had planted an acre, and seeded it as in the first case, there would have been about 340 bushels. an acre of the second, 280 “ “ third, 220 “ “ fourth, 260 “

The difference between the first and third is 120 bushels, which at 25 cts. per bushel, amounts to \$30. Now if I should have nothing but little potatoes to plant next spring, I should do well to throw them away and buy large ones at one dollar per bushel; and yet how many there are who are so “short out” for potatoes, that they are obliged to pick out all that are fit for planting, to eat, and then plant the leavings. Says farmer B. I don't know how it is, but I never have more than half potatoes enough, and I plant as many as any of you. The thing is you plant too many. Such as you plant count up fast. The potato has been wonderfully improved, and I think it may be still greatly improved, both in quantity and quality, by planting good seed on good ground, with good cultivation.

LEONARD K. HATCH.

Alstead, Nov. 25, 1836. *Silk Grower & Agr.*

EXPERIMENTS WITH MIXTURES OF ASHES, GYPSUM, LIME, &c. APPLIED TO CORN, WHEN PLANTED.

To the Editor of the Farmers' Register—

Should the following statement of experiments, made in planting this season's crop of corn, (though presenting negative results, be thought of any importance to the readers of your valuable Register, it is at your service.

Experiment 1st.—2 bushels of unleached ashes and 1 bushel of gypsum.

Experiment 2d.—2 bushels of unleached ashes, and 1 bushel of gypsum.

Experiment 3d.—1½ bush. of unleached ash-

es, one bushel of gypsum, and one gallon of salt.

Experiment 4th.—1½ bushels of unleached ashes, 1 bushel of gypsum, and ¼ bushel of caustic lime.

The above four compounds were separately applied on a marked length of five rows, at the rate of a full handful to each hill of corn, previous to covering, with six rows intervening between each experiment without any application, the soil of the whole being of good quality, and presenting a favorable opportunity for judging of the results.

Experiment 5th.—17½ bushels of leached ashes, 5½ bushels of gypsum, and 2 bushels of caustic lime: this mixture was also applied at the rate of a full handful to each hill of corn, with intervening rows, without any application.

Experiment 6th.—16 bushels of unleached ashes, 5½ bushels of gypsum, and 2 bushels of caustic lime, applied in the same proportion to each hill, as in the preceding experiments, and also with intervening rows without any application.

Experiment 7th.—20 bushels of gypsum, 2 bushels of caustic lime, and 2 pounds of sulphur: this mixture was applied in various proportions, from a handful to 2 hills of corn, to the same quantity on 4. Connected with and forming a part of this experiment, were 5 bushels of gypsum deprived of its water by heating, and applied at the rate of a handful to two hills of corn. A few days ago when cutting down this corn, I found that the gypsum, though artificially deprived of its constituent proportion of water, had, on coming in contact with the water in the soil, re-absorbed it, and formed into a hard cake, very slightly mixed with particles of the soil: from this I infer, that gypsum thus prepared, cannot properly or beneficially be applied in such quantities as in the above experiment. None of the gypsum used in this experiment, without being deprived of its water, though applied in the same quantities to each hill, can now be seen.

These experiments cover a space of ground altogether, of nearly 40 acres, on soils presenting considerable difference, and so arranged as plainly to exhibit any benefit which might have been derived from them, and every care was used in the due application of the different mixtures, and not without hope of considerable benefit: in this, however, I am disappointed, as not the slightest apparent benefit has been derived from any of these experiments.

Similar experiments made with ashes and gypsum by others, as reported in the Register and other agricultural periodicals, present highly beneficial results, not only in the increased growth of the corn, but in protecting it from the ravages of insects and crows. In this latter supposed benefit, I derived as little apparent good as in the growth of corn. What causes may have operated to produce this difference in results, in experiments so nearly alike, cannot probably be accurately known. All of the soil on which the above experiments were made, had been rendered calcareous by the free use of marl, which may so far account for the want of benefit from the application of the ashes and lime. That

no benefit was derived from this liberal use of gypsum, I attribute to the soil already containing a sufficient proportion of that combination of lime for fertilizing purposes. In this belief I am strengthened by having it applied to clover sown among the corn in the same field, and adjoining these experiments: a part of the clover was left unplastered, and exhibited no inferiority to that which had gypsum applied at the rate of 1 bushel per acre.

The expense attending these experiments was considerable in point of labor—at least doubling the expense of corn planting—and in this case, without any remunerating results: notwithstanding which, I am still of opinion, that on soils not calcareous, either naturally or artificially, this mode of applying ashes would be attended with highly beneficial results, as experience has proved that sulphate of lime is inert on soils that are not calcareous. N. L.

October, 9th 1836.

MR. COCHRAN'S IMPROVEMENT IN FIRE ARMS.

We copy the following account of Mr. Cochran's invention and Adventures. It will be found highly interesting.

Cochran's Many-Chambered Non-recoiling Rifle—This extraordinary invention of a young American, native of New-Hampshire, and which is now being for the first time exhibited to the public, at the Fair of the American Institute, Niblo's Garden, deserves more than a passing notice. There are circumstances connected with it, which give a peculiar, if not romantic, interest in the history of the arts of our country. If any thing were wanting amidst the multitude of extraordinary inventions which have, for the last half century, been recorded in the archives of our patent office, to illustrate and establish the pre-eminent claims of our countrymen to genius of a high order, it would be that which forms the particular subject of our remarks.

Mr. Cochran's father was a lawyer, and afterwards a merchant of eminence in Enfield, N. H. and the son, John Webster Cochran, was born there, and has invented the species of fire arms in question, was brought up to no particular business. At the very early age, however, of 16, he discovered a strong taste and passion for mechanical experiments, and was constantly occupied in the construction of machinery, which his father approving of, unlike many other fathers, encouraged, and to further the wishes of his son, expended several thousand dollars in his behalf, in the cost of the different kinds of apparatus required.

When only 13, he made the discovery in question, but did not perfect it until three years after. He then went to France and England, and exhibited his model cannon to Louis Philippe and William the IV. While at Paris in 1833-'34, he was requested by the Turkish Ambassador to explain it to the Turkish Minister at London, and accordingly went to Woolwich, and performed a series of experiments before the latter personage, which gave so much satisfaction that he urged Mr. C. to visit the Sultan at Constantinople, and for that purpose provided him with the most flattering recommendations to the court of the Sublime Porte. Mr. Cochran arri-

ved at Constantinople, February, 11th, 1836, was received with great distinction, and introduced to the Sultan by the Grand Vizier. His Turkish Majesty was highly pleased with the experiments made with the model, told Mr. C. he was satisfied it would be generally adopted, and requested him to cast twelve pounders on the same principle. He was provided with elegant apartments in Pera, raised to the dignity of Master of Cannon, and furnished with as many workmen as he required for the accomplishment of his task. The treatment, in fact, which he received, was equivalent to that of the rank of an Ambassador.

Mr. Cochran, however, finding there was no good foundry or mechanics, was obliged to undertake the work with his own hands; and though not brought up to the business of making machinery of any kind, by dint of much labor and perseverance, made himself all the necessary implements, the augers and the wooden apparatus for boring with horse power, and the preparations required for procuring the proper castings. By good fortune he succeeded entirely to his wishes, and cast and bored three cannon, two of one pound each, and the third a *twelve pounder*, which last was finished in a style as perfect as he could have desired. On the 14th September following he proved this last piece to his entire satisfaction, in the presence of all the chief officers of the Turkish government, who were delighted with its execution, and made a highly flattering report to the Sultan. He fired it off in the presence of those officers to their utter astonishment 100 times in fifteen minutes. The Sultan when he heard of it, would scarcely believe it, and directed Mr. C. to perform the same experiments in his presence. The most extensive preparations were accordingly made for this important trial, which was to take place at Tarache, on the European side of the Bosphorus.

No less than 8000 troops were assembled at this spot. The Sultan at the hour appointed, came over from his summer residence on the Asiatic shore, rowed in one of his splendid *caïques*, and preceded by a long line of other boats, of the same description. The one which announced the approach of the Sultan was manned by 40 oarsmen, and came with even more lightning speed than that in which his most august highness himself was seated. As the latter was seen nearing the wharf, Mr. Cochran, at the suggestion of Halil Pacha, the Sultan's son-in-law, and commander-in-chief of the land forces, fired off a salute of 21 guns (the customary number) with the experimental cannon, which consumed less than two minutes, and struck the assembled multitude with the utmost amazement.

As the Sultan at this moment stopped on the wharf, Halil, accompanied by the Grand Vizier, and other dignitaries, ran to his Majesty, and the former, making the usual salaam of kissing the Sultan's foot, announced to him with feeling of exultation that could scarcely be repressed, the wonderful success of the machine cannon, as they appropriately named it.

The Sultan arrived at his tent, then sent for the *master of the cannon*, the title which was given to Mr. Cochran, and after a short conference with him, in which Mr. C. conversed chiefly in the Turkish language, which he had partially ac-

quired, the Sultan renewing his expressions of kindness, requested him to perform the experiment in his presence. His Majesty had placed himself within a few feet of the piece, and Mr. Cochran commencing rather sooner than was anticipated, the Sultan, then with his back towards the cannon, was somewhat startled at hearing the explosions suddenly succeeding each other with such inconceivable rapidity. The cannon was fired 100 times as before in 15 minutes, during which the barrel acquired 650° of heat, while the revolving cylinder which contained the charges, was comparatively cool, being only 250° of the temperature. The Sultan's exclamation expressive of his delight was, "God save the Americans—if such boys as you (Mr. C. being then but 21) can invent such things, what can your men do!"

He then asked him for the bill of expenses, and being told by Mr. C. it was left at his own pleasure, he went the next day at the request of the Sultan to visit him at his palace. The bag of gold he there received was truly an imperial present, and enough to make his fortune. The amount would scarcely be believed should we name it, and we do not feel ourselves authorized to specify the sum more distinctly than may be inferred from what we have said.

Mr. Cochran soon after returned to America, with an understanding that he should have a contract for supplying a large number of cannon of the pattern exhibited, whenever it would be agreeable to him to execute it.

These adventures of Mr. Cochran, yet a youth, seeking in a foreign land that patronage and encouragement which were the proper measure and appreciation justly due to his pre-eminent talents, and which it is lamentable to be obliged to confess, his own countrymen would not have bestowed upon him, recall the similar examples of West, Fulton, Perkins, and others, and are calculated to reflect discredit upon our national reputation, inasmuch as Americans ought to be the first to reward these incentive powers which are so emphatically characteristic of, as well as honorable to the genius of our people.

Description of the Invention.—The invention of Mr. Cochran is adapted to every species of fire arms. The articles at present being exhibited by him at the Fair are a model cannon similar to that experimented upon before the Turkish Emperor, and a rifle complete, which we shall now proceed to describe. He has fired this rifle 1200 times, 500 of which discharges were in rapid succession, and without producing any expansion whatever in the chambers of the cylinder, or giving it a greater temperature than 100 degrees of Fahrenheit. As many as 2000 discharges are required before the rifle will have been properly tested after the rule of the war department. Mr. C. is ready at any time to fulfil this compliment and go beyond it. This afternoon he will fire it at Niblo's Garden 500 times in succession. The cylinder is a solid piece of iron, revolving in the plane of the barrel, and occupying a position directly at the base of the barrel which it is in close contact with.—The dimensions of the cylinder are in diameter about 4 inches, and in thickness seven-eighths of an inch. There are in this one, nine open chambers for the charges, which chambers are perforated upon the periphery and converge, like the

radii upon the centre. The cones on which the percussion caps are placed, form another series of radii concentric, and within the circuit of the chambers—a solid metallic partition dividing all the caps from each other. Each cone for the cap communicates with its appropriate chamber, and opens in the centre of the chamber, so that the whole charge of powder is ignited at once, by which the explosion of all the powder is made in one-half the time of ordinary rifles, and therefore so much the more force given to it, and consequently a much less charge is required—the weight of the charge being only *one grain and a half*.

As each chamber in its revolution comes in exact line with the tube of the barrel, the cock strikes the percussion cap, and the explosion takes place instantaneously. The chambers as they successively come into a line with the barrel in the revolutions of the cylinder, are momentarily retained firm in this position by the *regulating dog* connected with the cylinder where it joins the breach, and the pin of which dog catches in the small perforations made at equal distances for its reception. Nor can the cock strike the percussion cap until it is in exact position, for if the chamber is not in its proper place, the socket into which the hammer of the cock falls has presented to it only the metallic partitions between the cones, and therefore on striking these no explosion can take place. Nor can any accident happen from explosions of the other chambers contiguous to the one in connection with the barrel. Such an accident never did happen with this rifle, and if it should, the direction of the chambers is such that their charges would do no mischief. Nor can the flash of the powder in the chamber in a line with the tube of the rifle be communicated to the other chambers, as the joint of the cylinder where it comes in contact with the barrel is so close, that it is air tight, and will not permit of such extension of the ignited powder. The charge of one grain and a half of powder requires a size of ball of 50 to the pound, and the force is sufficient to perforate eight boards each of one inch thickness, at the distance of 60 feet. The arrangement of the ball is another beautiful and ingenious invention. Their diameter is exactly fitted to the chamber, but larger than the diameter of the tube of the barrel by an increment equivalent to the depth of the spiral creases on the inside of the tube. So that no patch is required as in other rifles, for it is forced into the tube of the barrel and exactly fitted to it, by becoming compressed into a cylindrical shape, and its sides grooved by the creases of the barrel, whereby it is kept firmly in its course, and move steadily and with such precision, and so closely wedged that there is no *windage* can get before the ball, and give an irregularity to its motion—a serious inconvenience to which all other rifles are liable. The aim of Mr. Cochran's rifle, therefore, is always deadly and sure.

By this arrangement there is another additional power acquired, for you have the entire force of the charge behind the ball until it leaves the muzzle, and in the same proportion is the velocity augmented, and, therefore, a less charge required on this account, as well as on account of the manner in which the percussion caps commu-

nicate with the chambers, as already stated. The creases of the barrel, as we before said, keep the ball exactly in its place throughout its whole course to the muzzle, whereas the patch, always used in ordinary rifles, is constantly liable to tear, which causes the irregularity in the ball's motion, and defeats the very object for which rifles were intended. The manner in which the percussion cones communicate with the middle of the chambers, causes the powder to explode in one half the time it would if the ignition took place at the end of, and posterior to the chamber.

As an evidence of the accuracy and effectiveness of this rifle, Mr. Cochran related a bear hunt, in which he took part, a few days since, on the Moose Mountains, in his native state of New-Hampshire. He fired at the animal with the rifle now at the Exhibition, and lodged nine balls in his brain, while he was under full way, at the distance of some four or five rods from him. The bear was brought to the ground, and the nine balls recognised and identified from the others lodged near them, by the grooves made in them by the creases of the tubes, and by their cylindrical shape. His brother sportsmen, who had, until then, deemed themselves in possession of good sporting pieces, expressed themselves in raptures at the superiority of their young countryman's magic rifle.

Another remarkable property in this rifle is, that it has not the least recoil whatever, so that there is not the slightest jar or irregularity in the direction.

The rifle will be fired at Niblo's 500 times in succession on this afternoon. The patent right for the rifle and pistol, for the United States, has been sold by Mr. Cochran to the trustees of a company in this city, for \$300,000. Richard & Richardson, No. 41, South-street, are the agents for the company, and have a large manufactory at Springfield, Massachusetts, and are selling the rifles faster than they can make them.

Col. Bomford, at the head of the ordnance department, U. S. army, who was present at the Fair, was so much pleased with Mr. Cochran's rifle, that he ordered him to make one, and bring it to Washington for experiment.

SILK.—The Northampton Silk Company have been manufacturing Sewing Silk for the last three months in large quantities. Some of it we saw the other day, is as highly finished and as smooth as the best Italian. They make over 60 pounds a week. They are just beginning the manufacture of silk fabrics, and when the new factory building is finished, they will do more in this way than all the other establishments in the country put together.—*Northampton Courier*.

CONTENTS OF THIS NUMBER.

Reference to articles on use of lime—visit to Mr. Beltz Hoover's farm and notice of the remainder of Mr. Shepherd's importation of cattle and hogs—method of fattening chickens—large apples—value of cylindrical straw cutters—notice of the destruction by fire of the Lynchburg Virginian—a large hog—observations on the culture and growth of fruit trees—communications on the use of lime—method of cultivating the raspberry—experiments in the culture of corn—description of Cochran's improvement in fire arms—manufacture of silk—prices current—advertisements.

CYLINDRICAL STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's improved Cylindrical Straw Cutters, of various sizes, adapted to horse or manual power.

The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, have rendered them the most perfect and effective Straw Cutter in this country; they are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realize a profit by feeding to his cattle his corn fodder, which would otherwise in a great measure be lost. These machines are self feeders, the knives of spiral form, and act on a steel bed, in such a manner as to cut with great ease and despatch. The sizes are as follow, viz.

11 INCH BOX, suited to manual power, and capable of cutting 600 bushels of straw per day, being quite sufficient for the usual wants of farmers, price \$30 00

Extra knives for do. per sett, 4 00

14 INCH BOX, suited to manual or horse power: this size will cut 1000 bushels of straw per day, price 45 00

Extra knives for do. per sett, 5 00

20 INCH BOX, suited to horse or steam power, capable of cutting 125 bushels of straw per hour, price 75 00

Extra knives per sett, 8 00

The above named machines are all made with endless leather, movable bottoms; boxes with stationary bottoms are only made to order, being inferior, and a very trifling less in cost.

ALSO FOR SALE,

CORN SHELLERS, with vertical cast iron wheels, will shell 25 or 30 bushels per hour, price 20 00

Ditto Do. a powerful machine, adapted to horse power, and capable of shelling 80 a 100 bushels per hour, price 40 00

1800 PLOUGHS, of various patterns and sizes, including those in general use and most approved, price, 4 50 a 20 00

WHEAT FANS, common Dutch and patent, price \$20 a 25 a 35 00

CULTIVATORS, for Corn and Tobacco, 5 a 6 50

COTTON GINS made to order from patterns, most approved by the southern planters, price \$50 a 150 each.

75 Tons Plough and Machine Castings.

AND IN SHORT,

Every other implement appertaining to the wants of the farmer.

ROBERT SINCLAIR, Jr. & CO.

ja 24 Light near Pratt street whf.

FRENCH SUGAR BEET SEED.



THE subscribers have for sale 200 lbs of white and yellow French Sugar Beet Seed.—This lot of seed was raised last season from French Seed of the finest quality and can be recommended as fresh and pure. Also directions on the cultivation of Beet Sugar.

In store, an extensive assortment of Garden Seeds, European Field Seeds, a large collection of Flower Seeds, and will have early in the spring a superb collection of DOUBLE DAHLIA FLOWER ROOTS, consisting of about 200 superb varieties.

ROBERT SINCLAIR, Jr., & Co.

Jan. 10, 1837. 2t. A. P. C.

POINTERS FOR SALE.

A thorough bred Pointer Stut, of most symmetrical proportions, beautifully marked with large black and white spots; of noble size, ears pendant. She is rising 3 years old; under good command; well broken; quarters finely, and hunts with great animation and spirit. Her price is \$40. To any gentleman wishing such an animal either for immediate use in the field, or for a breeder, she would prove a most invaluable acquisition.

ALSO, a male Pup, 4 months old, of fine form and growth, and genuine blood—his price is 20 dollars.

Applications to be made to the editor of this paper.

no 15

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	6 50	8 50
CORN, yellow,.....	bushel.	95	1 00
White,.....	"	95	1 00
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	10 75
" " wagon price,	"	10 25	10 50
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 00	3 75
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,...	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrapper, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,...	"	6 00	8 00
" good yellow,...	"	8 00	12 90
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,...	"	4 00	5 00
" ground leaf,...	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 30
Red, best,.....	"	2 10	2 15
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,...	100 lbs	1 75	—
To Wheeling,...	"	2 00	—
Wool, Prime & Saxon Fleeces,...	pound.	50 to 60	30 to 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do,.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,.....	pat
Branch at Baltimore,.....	do
Other Branches,.....	do
	MARYLAND.
Banks in Baltimore,.....	par
Hagerstown,.....	1/2
Frederick,.....	do
Westminster,.....	do
Farmers' Bank of Mary'd, do	do
Do. payable at Easton,...	2
Salisbury,.... 5 per ct. dis.	1
Cumberland,.....	do
Millington,.....	do
	DISTRICT.
Washington,.....	do
Georgetown,.....	do
Alexandria,.....	do
	PENNSYLVANIA.
Philadelphia,.....	1/2
Chambersburg,.....	1
Gettysburg,.....	do
Pittsburg,.....	2a2 1/2
York,.....	1a
Other Pennsylvania Bks. 1 1/2	2
Delaware [under \$5]....	3a4
Do. [over 5].....	2a3
Michigan Banks,.....	6a
Canadian do.....	6a

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds. Price—per copy, 50 cents.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

FRUIT AND ORNAMENTAL TREES AND SHRUBS FOR SALE.

At Clairmont Nurseries, near Baltimore.

THE subscriber hereby informs his customers and others, that his stock for sale this season of all articles common in the nursery line, except the tenderest green house plants, are very thrifty and mostly of large size, and of extent and variety not surpassed by many, if any in America. Particularly the Apple and Peach; Ornamental trees; Roses and other Shrubs. Of the Morus Multicaulis, white Italian and other Mulberry Trees, he has got about 100,000; the former, 2 to 7 feet high, strong thrifty plants with good roots; white Italian, also the same for their height, 1 1/2 to 4 feet—the 2 feet and 1 1/2 will be sold low, and all other articles on moderate terms. For prices and sorts of fruits, ornamental trees, shrub, and fruit shrubs, &c. see printed and priced catalogues to be had of the subscriber, gratis. He has a superb collection of Double Dahlias, now in full bloom, comprising upwards of a quarter of an acre. To see them, and the nursery generally, the citizens and others are respectfully invited. se 27 ROBERT SINCLAIR.

A DURHAM BULL.

THE editor of the Farmer and Gardener, Baltimore, has for sale, in this city, a beautiful young bull 2 years old, of the Improved Durham Short-horn breed.—He is red and white, beautifully marked, and of great beauty of form and points.

Baltimore, Dec. 27, 1836.

3t

DEVON STOCK.

THE editor of the Farmer and Gardener can at all times supply orders for Devon Cattle. This breed is so distinguished for their easy keep and docility, the richness of the milk of the cows, and for the activity and sprightliness of the oxen, that they would be admirably suited to the purposes of southern agriculturists.

The happy adaptation of the Devonshire Oxen, for the purposes of the farm, will be understood, when it is stated that 4 oxen have been known to plough 2 acres of ground in a day, and a team of them to trot at the rate of 6 miles an hour with an empty wagon.

Any person wishing to procure them can be supplied by addressing a letter, post paid, to the editor of the Farmer and Gardener. no 15

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 13. Editor Farmer & Gardener.

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verity with his sire. Price, \$500.

All letters upon the subject must be post paid.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper.

Letters on the subject must be post-paid oc 4

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. F. ROBERTS.

No. 40.

BALTIMORE, MD. JANUARY 31, 1837.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, JAN 31, 1837.

CANADA CORN.

We consider it proper at this time to call the attention of the Farmers in general—and particularly those who have suffered a loss of their crops from the unfavorableness of the past season,—to the yellow early Canada Corn, which has been cultivated here with such success, as to leave little room for doubt as to its superiority in overcoming the difficulties to be encountered in our ever varying climate. Five acres of this corn was raised the past season by our friend Mr. Hatch, of the Poughkeepsie Hotel, on his farm two miles below the village. It was planted about the 1st of June last, and after receiving no more than ordinary attention, has yielded sixty bushels to the acre, all perfectly sound and in as fine condition as any that we have ever seen.—We understand that it was perfectly ripe by the 10th of September, and will generally come to maturity in about ninety days. The land on which it was raised was in good condition, but not better than that of well cultivated farms in general. Mr. Hatch has already been applied to by fifty-four of our first farmers, for 147 bushels of this corn for seed next year.—*Poughkeepsie Eagle.*

This corn, which is sometimes called the *Dutton*, from the name of the gentleman who first introduced its culture into these states, deserves all the commendation contained in the above paragraph. It is highly prized in the state of New-York, as well as in several of the New England states, and we doubt not, when better known, will become a favorite in the more southern parts of our confederacy. The stalks are small and do not grow to near the height of many of the other varieties of corn; the ears, however, are longer than many of them, some of them attaining the length of 12 inches and more; the cob is of medium size, remarkably well filled up to its extreme point, with a beautiful yellow, approaching to orange, colored grains, there being 12 rows on an ear, which is glossy, flinty, and of

great weight. We planted a small patch of it last year; but unfortunately for our attempt to test its productiveness, it was planted on the 14th of May, came up in the midst of the drenching and long continued rain, which commenced the latter part of that month, and continued the most of June; and then had to endure the withering drought which succeeded it—added to these disadvantageous circumstances, which were fatal alike to its growth as to its culture; it was planted on a piece of ground, the vitality of which had been extracted by the previous occupant of the place. But amidst all these evils, it maintained a healthful dark green appearance, and matured its kernel in about 90 days. Of what its yield was, we cannot speak, as we had the bad luck to have our enclosures broken down by eight head of cattle on the night of the 7th of August, which remained in the field from an early hour in the night, until after day-light next morning, eating, knocking down, and otherwise destroying the ears and stalks. On the morning of the eighth, we gathered up several bushels of ears that had been knocked off the stalks, and to our surprise discovered that they were sufficiently hard for grinding. It is a variety of corn, which, from its low stature, will bear very close planting. In some of the counties of New York, it is customary to plant it but 27 inches apart, either way, and to let four stalks remain in each hill. Our's were planted three feet apart each way, four stalks in the hill, and we did not perceive, the condition of the soil and the nature of the season considered, that it was retarded in its growth by its nearness. In good ground, we are certain that it would yield at that distance to the fullest extent of its capacity. Many hills afforded two good ears for each stalk of the four which stood thereon, and we are confident, that, on good ground, properly manured and cultivated, it would average nearly that. It was our intention when we planted it, if it should prove productive, to endeavor to introduce its culture more generally, as from its early maturity, and capacity to endure close planting, we were, and still are, of opinion, that as our seasons are so precarious and the grub and cut worm so destructive, that it would

be found valuable, inasmuch as it might be planted as late as the 15th and 16th of June, with a certainty of its ripening in most seasons. We would not, of course, recommend so late planting, except in cases of necessity, where from casualties arising from the season, the worm, or birds, replanting should become necessary. We have said that it will mature if planted as late as the 16th of June, and we have so spoken, advisedly, having made the experiment last season and proved its truth. In the present state of scanty supply of breadstuffs, it strikes us that it would be an object with most planters and farmers, and especially with those in the southern states, to put in a part of their crops of this variety, because if planted on the 1st of April, as it might in many of the states south of Maryland, it would be fit for use in the beginning of July, and thus serve to eke out the stinted supply of grain of the last year. Again, would it not be judicious to plant this early variety in all fields intended for wheat, where it might be desirable to put in the plough before sowing? If sown thus early, and the stalks were cut and removed off the field, it would be in time to admit of ploughing, and seeding grain.

We have thrown out these suggestions, because,—*first*, we are aware that much of the late planted corn, of the old varieties, are caught by the frost, and, *secondly*, because we think that, in addition, to the security of escaping such fate, it is a most excellent kind.

It was, we have said, our intention, when we planted it, if its yield should prove as great here as it had done East and North of us, to dispose of our crop for seed corn; but—as from the circumstances we have detailed, we were not able to respond to the character given it for fruitfulness in that quarter, and can only bear testimony in its favor for early maturity, hardness and thrift, beauty and weight of grain, and competency to bear close planting,—we declined disposing of any but a very small quantity, determining, in our mind, to give it a *more perfect trial* next year. With this view we have prepared a piece of ground, the which, if the elements do not conspire against us, will be competent to elicit its virtues and test its value.

In closing we will remark, that the ears increased in size under our culture, from which we conclude, that, if enjoying the more genial influence of a southern climate, in good soil, it would improve with its acclimation, and thus add to its appreciation.

THE SUGAR BEET CULTURE AND MANUFACTURE.

A very interesting little work on this subject, has recently issued from the press of *Marsh, Capen, & Lyon*, Boston. It is a translation of parts of the interesting treatise of *M. M. Blachette and Zoega*, and is published with additions by *M. J. De Fontenelle*. We have read the work with much gratification, and, we trust, not without profit, and while we recommend it to the favorable notice of every agriculturist, we shall take the liberty of copying the chapter which we have given in another column. There are about twenty varieties of the beet, the kind however preferred by this author is the Silesian white radish beet, (*beta alba*.) He describes it as "rounded, pear shaped, white petioles, pulp white and of strong texture." This he says is "the variety recommended by *Archard* as the best and most productive," and yields the most sugar.

The beet he says "may be considered under four different relations of utility, viz :

- 1st. As an alimentary substance for man.
- 2d. As proper to supply fodder for cattle.
- 3d. Relatively to the sugar it contains.

4th. For the potash that may be obtained from it, by the incineration of its leaves and top."

In speaking of the product of sugar, he asserts, that experience has shown that the smallest beets, in a given weight, generally speaking, furnish a quantity of sugar greater than the larger, and that the juice of large roots does not mark scarcely from 5° to 6° on the hydrometer, while that of the smaller may go to 8° and sometimes to 10°. The small roots, also, it appears, present less difficulties in the manufacture: and that they are more economical, since the juice being more rich, has less water to evaporate.

The physical characters which may serve to make known a beet of good quality are these—it should be hard, brittle, make a noise under the operation of the knife, be perfectly sound, and if it savors more or less of sugar, that quality will show its richness.

Color, it appears, does not have any influence upon the quality and quantity of the product, but according to *M. Chaptal*, the sugar obtained from the red beet, retains a tint which makes it more difficult to whiten.

With this brief abstract, we shall content ourselves for the present, by directing the attention of the reader to the chapter selected for this day's paper.

Considerations on the Nature of the Soil, and the Climate which are suitable to the Beet.

The soil, its exposure, its nature, the climate to whose influence it is subjected, are the first considerations to which an agriculturist must give his attention for all culture in general, and which cannot be neglected when he acts on that of the beet in particular.

As a plant, having pivotant (single perpendicular) root, the beet requires a light soil, of good depth. Thus we must give preference to alluvial rich and sandy lands, or which may be inundated naturally every year, and thereby covered with a coat of slime, which will impart an artificial richness to it. Lands having natural or artificial meadows, after having, however, first taken from them a crop of grain, in order to give to the turf and the roots, which would impede the growth of the beets, time to be decomposed, are equally suited to this culture. Lands thus prepared may furnish two good crops of beets consecutively.

The product of high lands, in dry years, is inconsiderable; the roots not being able to attain all the growth of which they are susceptible, furnish, it is true, much sugar, in proportion to their size, but little, if we take into consideration, the surface of ground they occupy, and the quantity of sugar they would have given if they had attained only a middling size. The contrary happens in rainy years. It is altogether otherwise in low lands. The volume of beet is very great in rainy years, but the sugar that comes from it is very watery, and the quantity of sugar that may be extracted is very small. It is therefore necessary, in order to establish a constant relation, as nearly as possible between the volume of beet and the sugar, it will furnish, to cultivate this plant in grounds which are neither too dry nor too moist.

We may now draw this conclusion from what goes before, that it is not always the largest beets that present the most advantages in the extraction of the sugar.

The beets giving so much more sugar in proportion as the season has been more warm, it would be natural to think that it would be much more advantageous to cultivate them for this purpose in southern countries. But experience seems to have proved the contrary. In fact, though the beets cultivated in the south of France have a more sugary taste than those of the environs of Paris, they, however, furnish less crystallizable sugar, and even a few days after their maturity it is transformed into uncrystallizable. The reaction of these principles is with so much more rapidity in proportion as they are exposed to a high temperature. The 45th degree* seems to be the limit where we must

*There is a difference of about 6 degrees of temperature in the same latitude of Europe and America, which would allow us to cultivate it a little south of the above limit in this country.—But see note, next page.—*Trans.*

choose to cultivate them with a view to the production of sugar. We have supposed the existence of these different facts from the time when the experiments of *M. Archard*, were repeated in France. As much care as had been given to it, with all the variety of experiments used, we could not obtain from the same weight of beet a quantity of sugar equal to that which this chemist reports himself to have extracted from the white Silesian beet. The product which the factories of the Northern departments now obtain from the beet, with the improved process of extraction, and apparatus, have nearly approached, but have not, however, attained to the results announced by the Prussian chemist.

Notwithstanding all these facts, the conclusion which the learned author of the article *beet*, in the *Nouveau Dictionnaire d'histoire naturelle*, has drawn, of the impossibility that this kind of manufacture could prosper in the south of France, and to attribute to that cause the ruin of all those that were established there, does not appear to us strictly exact.† To the causes that we have mentioned in the preceding chapter as having exercised an unfavorable influence on this rising industry, perhaps must be added one that has been felt in the most disastrous manner in our southern departments: we allude to the deplorable system of fallow grounds.

The same variety, as we have said, does not always reproduce itself. It seems that in the act of vegetation it effectuates changes of the variety. These changes, it is ascertained, consist in alterations of the petioles and collets.

In a field sowed with the seed of the yellow beet only, there are always found some stems of the red and white. The seed of beet is sown in beds, or we sow it in sets to transplant.—We shall describe the manner in which these operations are done when we treat of sowing.

Some maladies frequently discover themselves in the beet during the course of its vegetation: they are generally of little importance, except the rickets which is known by the smallness and contortion of the leaves, by the discoloration of the roots, and by the complete absence of every savor in the pulp. The roots that are attacked with it must be pulled up. Insects do not appear to cause any sensible damage to it.

† Not only is this assertion not exact, but it is erroneous and anti-scientific. Experience has demonstrated to me that beets cultivated in the south of France and in Spain, follow the same laws of vegetation as other plants which are so much more rich in oily, aromatic and sugary elements, &c., as they grow in the warmer climates.

In this the beet does not depart in any manner from the general rule. I have in fact, tried a great number raised at Narbonne, Perpignan, Carcassone, Castilnaudary, Toulouse, &c., and I have always found them more rich in crystallizable sugar than those raised at the north. I think, therefore, that we must attribute the want of success of the experimental schools of the south of France to the inexperience of those placed at their head, without having made any particular study of this kind of manufacture.

Mr. Harlsteadt is, I think the first who has ad-

vanced, it is not known on what foundation, that the sugar beet appears to succeed better in northern climates, and that of consequence the manufacture of sugar appears to suit better these climates. This opinion appears to me to have something of the spirit of nationality. This is more probable, as M. Wagenmann has undertaken to combat this assertion by positive facts to which my experience brings a new support.

J. F.

SILK AND BEET SUGAR.

We copy the subjoined article from the "*Belvidere (N. J.) Apollo*," by which it will be seen, that Mr. Molleson, one of the representatives from Middlesex county, has introduced a resolution into the popular branch of the legislature of New Jersey, to appoint a committee to inquire into the expediency of encouraging the culture of Silk, and the manufacture of beet sugar in that state. This is a most wise and provident inquiry, and while we indulge the hope that it may be successfully carried through both branches of the legislature, we trust it will stimulate the members of every other legislative body in our country, where a similar measure has not been adopted, and the interests of whose citizens may require it, to follow the noble example thus set them by Mr. Molleson. The silk and beet culture, are both branches of husbandry, which, by proper management and care, if aided by our lawgivers, might be turned to the happiest account, and made to contribute alike to individual comfort and competency, and public wealth. When we reflect that nearly all our legislative bodies are composed in a great part of farmers, planters, and those whose interests are identified with them, we cannot get our own consent to believe that they will remain longer insensible to the advantages to accrue to the great body of our agriculturists; and, therefore hope that they will, by extending to those arms of industry, that protection and fostering care which they so richly deserve, entitle themselves to the thanks and gratitude of their constituents.

"SILK AND BEET SUGAR.

We observe in the Legislative proceedings of Tuesday last that Mr. Molleson of Middlesex, offered a resolution to appoint a committee to inquire as to the expediency of encouraging the culture of Silk, and the manufacture of Beet Sugar, in this State. This attention to the agricultural interests of the State is highly commendable; and it is hoped action upon the subject may not be delayed. The importance of encouraging the culture of Silk, for the purpose of benefitting their citizens, and enriching the nation, has received the attention of the Legislatures of several states; and those of some of the New England States have authorized the

payment of premiums to the successful culturists. There is a natural and excusable timidity in the minds of the people upon commencing a new business, which will pass away before legislative encouragement and the successful experiments of the enterprising. All practical investigators pronounce the culture of Silk one of the most profitable branches of his business, in which a farmer can engage. And so far as our connexion with the New Jersey Silk Manufacturing Company in this county, gives us access to facts, by which to form an opinion, we fully concur with them. Ere many years are past, the amount of silks imported may be reduced by production, and most of the \$16,000,000 annually sent out of this country to purchase them, kept at home.

The reports of many intelligent persons at home, and the actual results of the business in France and parts of Germany, induce the belief that the time may come when our citizens will manufacture sugar for their consumption, and perhaps to export, from the Beets raised by our farmers. This business is of more recent origin than the culture of silk. We find it represented as being very profitable.

It is hoped the committee will do justice to the subjects submitted to their wisdom; and this is becoming more necessary now, since a disposition is evinced in Congress to withdraw national protection from the farmer and manufacturer."

A few days since on opening our mail, we found a stranger among our papers, which we discovered to be the *Milwaukee Advertiser*, published in the infant territory of *Wisconsin*. Upon opening it we discovered the articles which are placed below, marked for our insertion. We comply with this request with the more pleasure, as we observe in the first, the gratifying evidence that the hardy adventurers of that far distant land, are thus turning their attention with zeal and intelligence to the necessity of early husbanding the bounties of climate and soil, which it has pleased Providence to vouchsafe to them. Doubtless the larger portion of these pioneers are emigrants from the eastern states, where they have learned the advantages of agricultural associations, and have wisely taken the incipient step to secure to their new homes similar blessings to those they enjoyed in the land of their birth. They have, in all sincerity, our best wishes for the success of their generous effort.

At the exhibition of large Agricultural products raised in Milwaukee county, made on Monday last, in pursuance of a notice published in the *Milwaukee Advertiser*, premiums were awarded as follows:

To *Sylvester Pettibone*, of *Prairie Village*, for the heaviest bushel of oats, weighing 44 pounds 4 ounces.

For the largest ruta бага turnip, weighing 23 pounds 8 ounces.

To *John Douglas*, of *Kinickinic*, for the largest English turnip, weighing 8 pounds 8 ounces.

For the largest radish, weighing 4 pounds 5 ounces.

To *John Day*, for the largest 10 potatoes, weighing 14 pounds.

BYRON KILBOURN.

It was concluded that the interest of the country required the formation of an Agricultural Society in this county, and notice is hereby given, that a meeting will be held on Saturday, the 28th day of January next, at the new Exchange buildings, for the purpose of organizing such a society. All persons who feel an interest in the subject, and in the prosperity of our new Territory, are requested to attend.

Our friend of the *Green Bay Democrat*, in his last number, adverts to the fine Agricultural productions of our country, and adds:—

"There appears to be some strife between *Dubuque* and *Milwaukee* for superiority in producing. Look out for your laurels, neighbors, or *Green Bay* may step in and take them off. Can either *Dubuque* of *Milwaukee* furnish an account of a more extraordinary increase in the potatoe line, than that of which we published an account a week or two since? We throw down the glove at their feet, and place *Capt. Scott* against both."

We of *Milwaukee* will enter the lists with our friends of the north, and if *Capt. Scott* raised 60 potatoes which weigh over 68 and $\frac{3}{4}$ lbs., or 10 which average 14 lbs., then we acknowledge ourselves vanquished. We cannot give the amount of "increase" from a given amount of seed, as we are not aware of any such experiment having been made in our county.

We promised in a former number to give some extracts from the very able and interesting speech delivered before the *Central Agricultural Society and Mechanics' Institute of Lynchburg, Va.* by *Achilles D. Johnson, Esq.* and we redeem our pledge with the more pleasure now, because from the character of the parts which we give to-day, we feel confident that our readers will derive both pleasure and profit. In our next, we shall give other extracts embodying the practical views of this gentleman.

"Mr. President, it is doubtless expected and desired, by this time, that I should notice more particularly the operations of farming, and the physical requisites upon which it is based, to be profitable. And upon this subject, I must confess myself most especially defective. Perhaps, indeed, there may be some present, who might doubt,—most politely to be sure,—as to the propriety of my saying aught on this subject, seeing that my own operations do not come up to what I may suggest. To which I will only say, that I might retort upon them, perhaps—I might ask them if they have done all on their farms which they knew to be right? This society is a general fund, into which all are entitled and invited to throw their information, though it be only a mite—And I feel it my duty to give in mine on this occasion, as reflection may direct.

1st, I have said before, that a knowledge of

the formations of the earth, and of the ingredients of which its outer surface or soil is composed, is essentially necessary to the commencement of a good system of farming. It lies indeed at the very foundation of agriculture—and yet men have delved and delved upon their soil, like the Cyclops upon their anvil—as if the desired results were to be produced rather by many blows than by science—and as if they were condemned to the employment, without knowing or caring as to the materials on which they were operating. The two great ingredients of which the external crust of the earth is composed—Silicia or sand, and Allumina or clay—have been determined, by chemists, to constitute only the mediums for the extension and preservation of the roots of plants, and for the conveyance to them of those gases and liquids, which are contributed as their food. These, alone, contain nothing in them necessary to support vegetable life. Nature has therefore beneficially supplied other matter for the sustenance of plants. And in almost all countries, except the Deserts, which are deprived of all chemical combinations necessary for the support of life, lime, in some form or other, has been found to enter into the composition of soils. M. Puvis says, “that among these substances, the two first form almost exclusively three-fourths of soils—the third is found more or less mixed in the other fourth. All soils in which the latter earth is found, have similar characters, producing certain families of vegetables, which cannot succeed in those in which it is not contained. The calcareous element seems to be in the soil, a means and principle of fertility. Soils which contain calcareous earth in suitable proportions, suffer but little from moisture, and let pass easily in the lower beds, the superabundant water, and consequently drain themselves with facility.” And on the other hand, it is said that it renders soils retentive of moisture, which otherwise, by their superabundance of sand, would have suffered almost an immediate filtration and evaporation of the water.

As to soils suitable for liming, M. Puvis furnishes some “visible characters,” by which they are almost certainly to be distinguished. “The soils where the cow-wheat, rest harrow, thistles, colts foot, and red poppy spring spontaneously—which produce well in wheat, or plants of the pea kind, and especially sain-foin—where the chesnut succeeds badly—which shows but little of dogs-tooth, volunteer grasses, or common weeds, except of the small leguminous kinds—soils, which, after being dry, crumble with the first rain,—all these are almost certainly calcareous, and have no need of lime,” except, as Mr. Ruffin maintains, in the form of gypsum, which he thinks might yet be beneficial. On the contrary, all soils composed of the moulderings of granite or scistus—almost all sandy soils,—those which are almost cold, those where rushes, the heath, the whitish moss spring spontaneously, almost all the soils infested with dog-tooth, with bent-grass, red sorrel and little feverfew—that soil, where, unless so clayey as to offer great difficulty to cultivation, only rye, potatoes, and buckwheat can be made to grow, and where sain-foin, and where the greater part of the crops of commerce cannot succeed—where, however, trees of all descriptions, and especially of the re-

sinous kinds, the wood-pine, the sea-pine, the larch and the chesnut, thrive better than on the best land—all these soils are without the calcareous principle, and the improving manures in which it is found, would give to these the qualities of, and nourish the growth peculiar to calcareous soils.”

The uses of liming in agriculture, from M. Puvis’ reasoning, are as follows:

“1st. When a soil contains inert, animal or vegetable matter, their decomposition may be promoted, and it may be rendered fit for that which the soil gives out its sustenance. It is indeed the great mechanical employment to which nature has assigned the greater portion of the world’s inhabitants. It should be applied, then, not with mere physical force, but with science—in a knowledge of the best mode and results in the productions and improvement of the soil. A variety of opinion still exists, as to the proper depth to which the earth should be stirred and ameliorated. I unhesitatingly express it as my opinion, that for the sole purpose of a lasting improvement, deep ploughing is essentially necessary on all soils. For an immediate crop on a shallow soil, I admit that this mode not unfrequently operates deleteriously, by mingling about the roots of the plants too much of the substratum. But a further crop will grow better by finding a deeper penetration for its roots. If the sub-soil be clay, which I believe constitutes the under bed of nearly all our lands, it follows that deep ploughing contributes to a deep soil, which is not in danger of losing its fertility by a filtration of its vegetable nutriment into the beds below. Manures then, or vegetable matter, must have a tendency to ascend to the surface or to keep their place, and the roots of plants find a ready medium for their extension to a depth, which is calculated to support a firm and vigorous top. All plants which have a tap or perpendicular root, surely require a considerable depth of tillage. But I maintain that all those with only lateral roots, grow best and are most fruitful in a soil deeply penetrated by the plough. A soil thus prepared is more retentive of moisture in a dry season, and loses its superabundance of moisture in a wet one. But there is another argument in favor of deep ploughing, which I make particularly as my own suggestion. It may not unfrequently happen that the surface soil may not be composed of due proportions of sand and clay. Perhaps the substratum might contain the necessary deficient ingredient, and might be within the reach of a moderately deep plough. In this case, might not the operation of deep ploughing produce the desired result? If the surface is clayey, stiff and heavy, it might mingle sand with it, and if it be too greatly silicious and light, it might bring to the surface the necessary quantum of clay. But this argument I will leave to the development of the experimentalist. In favor of the deep cultivation of land, I will only say farther, that in England, and Scotland, and Flanders, where farms are necessarily small, by reason of a dense population, and where lands are consequently tilled with care to their greatest production, in many instances, first broken up with the spade forty, and fifty, and even sixty bushels of wheat to the acre is a frequent production. The superabundance of their root crops would astonish the best farmer in Virginia.

To the advantage of deep ploughing I would suggest that of bedding in the fall. It occurs to me, that thin soils, either hill side or bottom, particularly such as are light and arid, would better sustain vegetation, and particularly young clover, by this operation. The plan I propose is to throw up the soil in the fall in beds of four to six furrows, having an especial regard to their horizontal direction, and leave it in that condition till the spring, when it should be seeded in oats and clover. The settling and gradual abrasion of the beds through the snows and atmospheric action of winter, will, I think, contribute to the sustenance and growth both of the grain and clover. This should be one of the great objects of all our farming—to give to all our old hills, and repudiated fields, an incipient life-spring of clover. In farther illustration of the reasoning I have advanced, I will mention the instance of Baron Von Voght, in Germany, given by himself. On the soil of his manor, which was greatly sterile, he commenced his operations by ploughing moderately deep. He applied his improving and alimentary manures, and at every succession of tillage, he ploughed them into a still greater and greater depth. He regularly altered his implements to suit his purposed depth of ploughing, and the result was, in a few years, a soil as deep and fertile as his most sanguine feelings could have desired.

[From the Genesee Farmer.]

SPRING WHEAT.

We invite the attention of the reader to the following valuable communication, from the Honorable JAMES M’CALL, of Allegany county, on the culture of Spring Wheat,—a subject which we think deserves more consideration among a large part of our farmers, than it has hitherto received. Judge M’Call is a practical farmer, and his long experience in agriculture entitles his opinions to the most respectful deference, while the success attending his operations proves the correctness of his system.

The silicious nature of the soil, the softness and purity of the water, and the entire absence of all calcareous matter in far the greater part of the southern tier of counties, clearly proves that while it is not adapted to the production of Winter Wheat, it is favorable to all kinds of spring grain, and the cultivation of the grasses. Skillful farming may, and the example of Judge M’Call proves sometimes does, overcome these obstacles to the cultivation of Winter Wheat, but the uniform experience of that whole range of counties shows that Spring Wheat is more certain and productive.

The excellence of this part of New York for grazing, and the raising of stock and the dairy, has been fully shown by the past; that the soil can be wanting in fertility will not be pretended by any one who has witnessed the extraordinary crops of oats produced under the most imperfect and early methods of culture; or the rich returns of Spring Wheat where a more scientific mode of farming is pursued. The capabilities of this region have as yet been but little appreciated, and its comparatively secluded nature has prevented the rapid settlement which would otherwise have taken place. A different prospect is now before

this section of the state; traversed by the New York and Erie rail road, and intersected by the Rochester and Olean canal, the difficulties that have attended a market, will be done away; and the thousands that are wending their way to the wild and desolate prairies of the far west, will many of them be diverted to a territory which must eventually become one of the finest farming regions of our widely extended country.

CULTIVATION OF SPRING WHEAT.

Extract of a Letter from the Hon. JAMES M'CALL of Rushford, Allegany Co.

In answer to your inquires with regard to my experiments and experience in the culture of Spring Wheat, I have the pleasure of saying they have both been very satisfactory. Previous to 1833, I had not for fifteen years sown any of that kind of wheat; when I was induced to sow two acres with three bushels of seed. The product of these two acres was seventy bushels of wheat. In 1834 my winter wheat was very badly frozen out; I went on and harrowed in Spring Wheat as soon as the frost had left the ground. Twelve acres of this wheat produced two hundred and seventy-six bushels, or twenty-three bushels per acre. Another piece of five acres produced one hundred and forty-nine and a half bushels, or thirty bushels to the acre. Another piece sown on wheat stubble, produced twenty-two bushels to the acre.

Last spring I sowed ten acres of wheat stubble, which was ploughed once in November, and the seed was harrowed in as early in the spring as the frost would permit; this will yield me twenty bushels per acre. I also sowed four acres from which corn had been taken the year previous; and which will give me thirty bushels to the acre. As a continuation of my former experiments of sowing Spring Wheat on winter killed wheat, I sowed one bushel on spots where Winter Wheat had been killed out by snow drifts, one half of which at least was picked up by the pigeons, yet the remainder produced sixteen bushels, and had I have sown all that was killed out of the piece of nine acres, it would have added to my crop fifty bushels more.

I am so well satisfied with my experience on this subject, that I would in all cases where wheat is badly winter killed, whether in spots, or generally, recommend to sow the ground to Spring Wheat, and harrow it in as early as you are satisfied that the old roots are dead. Harrowing lightly over wheat that is alive will not injure the roots at all, and the scattering Winter Wheat that grows up will produce no injurious effect. Between the two you are sure of a good crop; and besides you keep out of the land, grass, weeds, and other foul stuff, such as cockle, chess, &c., which every farmer knows will spread on the unoccupied soil to a thousand fold.

Some of my best neighbouring farmers, have been for a number of years, in the practice of preparing their ground intended for wheat, in the previous fall, and sowing their Spring Wheat as stated above as early as possible, and have uniformly succeeded in getting good crops.

Spring Wheat is more apt to smut than Winter Wheat; but I have not had any smutty wheat of the kind, neither do I have any in my Winter Wheat. Being satisfied that smut is contagious,

I have for twenty years washed all my seed wheat in strong brine, (or pickle,) and skim off all that floats on the top. When the wheat has drained in a basket a few minutes, I mixed dry lime with it, letting it lie twelve hours, and if longer it will sustain no injury.

There are two kinds of Spring Wheat raised by farmers in the county, the bearded and the bald; which is the best to yield I am not able to say, having raised none but the bearded; but it is evident the bald would be the most pleasant to work amongst.

Yours, &c.

JAMES M'CALL.

Rushford, Nov. 12, 1836.

[From the Pennsylvania Sentinel.]

SILK.

It must be admitted that the North is dependent, in great part, upon the South, for her present prosperity. Her own enterprise, industry and skill form of course, the primary source of her wealth; but without the productions of the South, without the South as a market for our productions, we would find our enterprise and industry unprofitable. Nine-tenths of the exports of this country, it is said, are raised by the slave holding states. To feed those states our grain growing regions are in requisition; our manufactures are sustained in clothing them; and our marine employed in carrying their staples to market. The North is without exports; and if, by a contingency not wholly improbable, she should be cast upon her own resources, it is difficult to define the disastrous consequences which would ensue.

Every friend of the North must be anxious to see her industry directed to pursuits which would make her independent—at least so far as independence can be expected or desired. For this purpose, the cultivation of the beet root has been patriotically encouraged, and promises to be completely and extensively successful. The culture of the silkworm has also attracted the attention of some of our most public-spirited citizens; and there is every reason to believe that, under the measures which have been and will be taken, it will be successfully introduced. We gave, in Tuesday's paper, the able report of a committee of our citizens on this subject. This report was, it is said, drawn up by N. Biddle, Esq. and presents the subject in a most interesting light to our public. The report commends in high terms, the domestic silk manufactory of Messrs. Upton & Jackson, in Stamper's alley, in this city; and recommend that they be purchased out and a company established. We do not doubt that the Legislature would incorporate such a company; and from all the information we have been able to gain on the subject, we are induced to believe that the operations of the Company would be immediately profitable. The report informs us that there are already many hundreds of acres in this state planted with the mulberry, small lots of cocoons are offered daily, and the committee entertain the belief that in 1837, one fourth of the supply for the manufactory of a moderate extent, can be obtained from American cocoons. In three or four years, a manufactory with machinery and buildings, requiring a capital of \$100,000 may be supplied with American Silk.

Three hundred and ten good cocoons make one pound, and eight pounds of cocoons will give one pound of reeled silk. At that rate, the reeling being done at the manufactory, the cost of the silk will be about \$3 per pound. When cocoons are produced in abundance, the committee are disposed to believe that at 12 cents per pound, the raising of them will be as profitable as growing cotton at 15 cents per pound.

RAW SILK.—At the first going off our manufactories must depend chiefly on foreign raw silk.

The present prices of foreign raw silk are, Bengal, \$4 25 to \$6 per pound; China, \$5 50 to \$6; Italian, \$6 60 to 7 per pound.

The amount of manufactured silks imported into the United States in the year ending on the 30th of September, 1835, was \$7,497,909.

[From the Genesee Farmer.]

GOLD MINES OF VIRGINIA.

The following paragraphs from a private letter, were highly interesting to us, and we presume will prove equally so to our readers.

"Professor Silliman has been recently in Virginia. He was employed by one or two companies who have gold mines in this quarter, to examine the ore, to make a detailed report of its value, and to communicate any other information, geological or practical, which might be of service to the companies. I understood he performed his duties to great satisfaction.

"These mines within a year or two past, have attracted the attention of speculators, almost as much as the public domain of the west, though not on the same extensive scale. They extend through several of the adjacent counties, and even into North Carolina,—the course being N. E. and S. W.

"Professor Rogers in his Geological Report to the Legislature, thinks the auriferous rocks are not of contemporaneous origin with the regularly stratified rocks of the vicinity, but that they were forcibly injected by igneous agencies from beneath, rising in directions of least resistance, and therefore generally, though not uniformly, following the stratification of the rocks through which they passed. This inference he deduces from the facts that the veins are not of uniform thickness between the walls of the adjacent rocks; but being on the contrary very irregular in their forms—at one point having a thickness of several feet; at another, very near to the former, contracting so much as only to measure a few inches across; and in other places sending off numerous veins into the enclosing strata. Another fact is that the dip is sometimes not conformable to that of the neighboring strata. The gangue is a variegated quartz.

"Professor Silliman in his report of an examination of the ore from one of the mines, gives it as his opinion that it is the richest in the world. From a bushel of the ore, he obtained (as well as I recollect,) about forty dollars worth of metal.—It is therefore probable that some years hence, when the aids of science shall be brought to bear on the subject, the quantity of gold may rival that which was found in possession of Montezuma and his subjects.

"Some months ago, I was in that part of the country, and was informed by an intelligent gen-

tleman engaged in mining operations, that there were abundant evidences of gold being dug there in former times. They had discovered several feet below the surface, in the course of their explorations, instruments which had been evidently used to detach the quartz from its beds; and these instruments exactly resembled in their shape, those now in use. They were in fact what we call *picks*, made of granite or some other very hard rock, and having a hole in the middle for a handle; the ends being each about nine inches long. It must have been a long time since they were in use. This is inferred from the circumstance that there are no external signs of the earth having ever been disturbed, the trees of the forest being as large as in any other place."

We have only room to remark that evidences of ancient explorations also occur in the Gold Mines of Georgia.

[From the Germantown Telegraph.]

ON THE DISEASES OF DOMESTIC ANIMALS.

NO. IV. SYMPTOMS OF GLANDERS.

Nasal discharge. The earliest symptom is almost invariably an increased discharge from the nostril; much in quantity—constantly flowing—not sticky at first—watery—a little mucus gradually mixing with it, and this continuing for an indefinite period of time before it assumes a viscid character.

The Left Nostril most frequently affected.

It is a singular circumstance that this discharge is much more frequent from the left nostril than from the right. M. Dupuy says, that out of eight cases of glanders, he met with one only with discharge from the right nostril alone. This difference in the affected nostril does not exist to so great an extent in the practice in England, but in two cases out of three, even here, the discharge is from the left nostril alone.

Progress of the nasal discharge. Inflammation cannot long continue without producing some disorganization of structure or alteration of function in the affected part; and the disease having existed for a greater or less length of time, the secretion from the nose is altered in quality as well as increased in quantity, and we have the peculiar viscosity of which all our writers speak, and which cannot be mistaken. The discharge is more transparent than that of catarrh—it has seldom any offensive smell, it still continues to flow constantly on, and it has a singular stickiness unpleasantly adhering to the finger, and sometimes in a manner glueing the nostrils together. This also continues for an indefinite period of time, until the disease has committed greater ravages on the membrane in which it is seated, and the discharge becomes bloody, purulent, and offensive. Ulceration has then taken place in the membrane of the cavity, or of some of the cells connected with it. The color of the septum will now begin to change. It has usually been described as pale, or livid, or brown, in glanders. In the early stage of the disease, however, it has a decided, and sometimes, intense redness of hue. It indicates inflammation, and the degree of inflammation which exists. But when that inflammation has weakened the mem-

brane on which it existed, and the process of ulceration commences, it becomes pale, livid, leaden-colored, or brown.

Chancrous ulceration of the nostril. The ulceration once established, the disease hastens in its progress, and the sores begin to be visible on the lower part of the septum: they are sores of a peculiar character, not mere abrasions—not stripes of excoriation as we sometimes see in nasal gleet—not the undefined ragged ulcerations, which are usually consequent on inflammation, but distinct ulcers—chancres—with rounded, elevated, well-defined edges. They are found, not scattered here and there upon the septum, but in regular succession; they follow the course of the vein which runs down towards the centre of the septum, and contiguous to which, and lying almost in contact with it, are the absorbent vessels of the septum. Particular attention should be paid to this, with reference to another form, or perhaps stage of glanders, which we shall presently consider, namely, *Farcy*—inflammation and ulceration of the superficial absorbents, and showing already the connexion between these maladies, or rather their identity.

These ulcerations sometimes spread over the greater part of the cavity. They occasionally produce, or are accompanied by caries (mortification) of the ethmoid and turbinated bones: they eat fairly into them; but the ulcers on the septum are, in most cases superficial, and the perfect separation is still preserved between the diseased nostril and the sound one. When these chancres appear, the case is usually a lost one: but in a few instances, either by the power of medicine or of nature, these chancres take on a healthy character, cicatrize and disappear. Ulcers have rarely long appeared in the nostrils before the constitution becomes affected: the coat staves; it has a peculiar pen-feather appearance, scarcely ever seen in simple want of condition. There is a strange dryness and stiffness of the skin, the hair comes off on the slightest touch, the belly is tucked up to an extraordinary degree, and the strength rapidly declines; there is cough, difficult and painful; the inflammation or ulceration has then travelled down the windpipe, and the lungs are evidently affected; the breathing becomes difficult from another cause; the lining membrane of the nose is thickened by the inflammatory and ulcerative processes; the air passage is obstructed and almost closed, and each act of respiration is accompanied by a hoarse roaring sound: there is a peculiar tenderness about the forehead, it becomes thickened, and gives an appearance of swelling: the whole head, and face, and muzzle particularly swell. *Farcy* now is superadded to glanders, or glanders has degenerated into *farcy*: or rather, perhaps more of the absorbents are involved; and little tumors appear about the muzzle, face, and neck, following the course of the veins, (for these point out the direction of the absorbents,) and the tumors rapidly ulcerate. Tumors, still pursuing the course of the absorbents, now appear on the inside of the thighs, and they are connected together by a corded substance; this is the inflamed and enlarged lymphatic, and ulceration soon spreading, rapidly follows the appearance of these buds. The deeper seated absorbents are now

affected: one or both of the hind legs swell tremendously, and become stiff, hot, and tender. The loss of flesh and strength can now be marked every day: the membrane of the nose becomes of a dirty livid color; that of the mouth is strangely pallid; the membrane lining the eyelid is infiltrated with a yellow fluid, like a sheep with the rot: the discharge from the nose becomes more profuse and insufferably offensive: the animal presents one mass of putrefaction, and at length perishes exhausted.

BEES.

When the queen-bee is forcibly taken away from the hive, the bees which are near her at the time, do not soon appear sensible of her absence, and the labors of the hive are carried on as usual. It is seldom before the lapse of an hour, that the working-bees begin to manifest any symptoms of uneasiness; they are then observed to quit the larvæ which they had been feeding, and to run about in great agitation, to and fro near the cell which the queen had occupied before her abduction. They then move over a wider circle, and on meeting with such of their companions as are not aware of the disaster, communicate the intelligence by crossing their antennæ and striking lightly with them. The bees which receive the news, become in their turn agitated, and conveying this feeling wherever they go, the alarm is soon participated by all the inhabitants of the hive. All rush forward, eagerly seeking their lost queen; but after continuing their search for some hours, and finding it to be fruitless, they appear resigned to their misfortune, the noisy tumult subsides, and the bees quietly resume their labors.

A bee deprived of his antennæ, immediately becomes dull and listless: it desists from its usual labors, remains at the bottom of the hive, seems attracted only by the light, and takes the first opportunity of quitting the hive, never more to return. A queen-bee, thus mutilated, ran about without apparent object, as if in a state of delirium, and was incapable of directing her trunk with precision, to the food which was offered to her. Latreille relates that, having deprived some laboring ants of their antennæ, he replaced them near the nest; but they wandered in all directions, as if bewildered, and unconscious of what they were doing—Some of their companions were seen to notice their distress, and approaching them with apparent compassion, applied their tongues to the wounds of the sufferers, and anointed them with their saliva. This trait of sensibility was repeatedly witnessed by Latreille, while watching their movements with a magnifying glass.—*Dr. Boget's Bridge-water Treatise.*

The following incident, illustrative of the affection of bees for their queen, is very graphically described by Mr. Bagster, in his work on the *Management of Bees*, an occupation to which the author seems enthusiastically attached. Our readers are probably not aware that the process of taking the honey is not necessarily attended, as was formerly the case, with the destruction of the wonderful little insects, who with so much labor and skill have hoarded their treasures as a provision against future exigencies. A species of large mushroom (*Fungus maximus*,) commonly

known by the name of "bunt," "puckfist," or "frog-cheese," is humanely employed by those who wish to spare the lives of their bees, whilst taking possession of their sweets. A small piece of this "puck," previously dried and properly prepared, being ignited and placed underneath a hive, operates by its vapour as a powerful narcotic upon the bees which fall unhurt into an empty hive, placed to receive them. By exposure to the fresh air, these bees are soon restored to health and activity; when they set about repairing the loss which, during the temporary suspension of their busy existence, they have sustained. Mr. Bagster had been taking some stocks of honey, in the way we have just mentioned, when an accident happening to one of his hives, the queen-bee was thrown out, and a scene of distress and considerable confusion ensued.

"I thought," says Mr. Bagster, "that I might put the queen into possession amongst some of the comb; but to be certain, I gathered up every bee I could find, and put the emptied hives on their side against mine, so that the queen might have every opportunity to get in, if not already there. The profusion of spirit honey, the hot weather, and the bees from my other hives, caused a great commotion, so that the real cause, the absence of the queen, was undiscovered. The next day, the same hurley-burley continued; when, fearing that my queen was unseated, I took an apiarian friend to form a judgment. It was his opinion that there surely was a queen in my new hive, or that if destroyed, one soon would be made out of the brood comb. I pointed to groups of bees on the grass, and around the stand, still fearing that my queen was among them; but he so positively said such was not the fact, that I did not then examine any of the masses. Naturally inquisitive under such circumstances, I visited my perturbed hive late in the evening, and found, while the others were quiet, that this was in an uncomfortable state. All the masses or companies of bees, which had been licking up the dropping sweets through the day, had now retired, save only a lot, about as large and as round as a small cricket-ball. At dark I again visited them—hope revived, for the mass remained unmoved: by the earliest peep of day I rose from bed, after a sleepless night to look for my beauty.

"I confess myself an enthusiast; I laid myself at full length on the grass, and with my hand opened the benumbed mass: there was the queen, surrounded by her faithful and watchful subjects, paralyzed, and to all appearance quite dead. I picked her up, placed her in my hands, breathed upon and cherished her for a considerable time, until, I think with joy of a new kind, I saw her move one joint of one leg; my tender care was renewed until the sun had mounted high in the heavens, and by his beams renewed the perturbation of the defenceless hive; and then, indeed courage was necessary, for the bees had just missed their queen. To those alone who have witnessed such commotion can an idea be conveyed.

"Now came the delightful scene,—my queen was restored by the genial warmth of my hand, and walked comfortably about it, the bees her

subjects, were whirling in incensed crowds around the hive; the buzz of discontent was incessant, and clearly marked. At this moment I called all who were in the house to witness the scene. I placed the queen on the alighting-board at the door of the hive: she was recognised in a moment; the pass-touch, or pass-word, or pass-hum, was communicated. The great commotion was instantly changed to peace. She was caressed,—licked over and fondled,—the bees pressing round, who, with an affection worthy of the best subjects of a beloved monarch, showed their attachment in terms that even human tongues could not exceed.

"From that moment all was peace and harmony, and joyful labor. Very few of the brood were destroyed by the accident which gave rise to the development of this peculiar instinct; and I hope I treasure up the remembrance of the circumstance, as one more proof of the truth of that passage of Scripture, "God doeth great things, and unsearchable; marvellous things out of number."

A NEW MOTIVE POWER.

Messrs. Davenport & Cook of Saratoga, after several years of study, have according to the Sentinel, of that village, succeeded in constructing an Electro-Magnetic Apparatus, which consists of "a stationary magnetic circle, formed of disconnected segments. These segments are permanently charged magnets, the repelling poles of which are placed contiguous to each other.—Within the circle stands the motive wheel, having projecting galvanic magnets, which revolve as near the circle as they can be brought without actual contact. The galvanic magnets are charged by a battery, and when so charged, magnetic attraction and repulsion are both brought into requisition in giving motion to the wheel—the poles of the galvanic magnets being changed more than a thousand times per minute.

A model in which the motive wheel was 5½ inches in diameter, elevated a weight of twelve pounds. Another model was exhibited with a motive wheel of 11 inches diameter, which elevated a weight of eighty pounds.

Several individuals, agents of Messrs. Davenport and Cook, are about departing with models to secure letters patent, in the different countries of Europe and South America."—*Providence (R. I.) Journal*.

A WARRIOR'S OPINION OF WAR.

The following is singular language to be used by a brother of Napoleon. It is from an answer of Louis Bonaparte to Sir Walter Scott:

I have been enthusiastic and joyful as any one after a battle; but I also confess, that the sight of a battle field has not only struck me with horror, but turned me sick; and now that I am advanced in life, I cannot understand any more than I could at fifteen years of age, how beings, who call themselves reasonable, and have so much foresight, can employ this short existence not in loving and aiding, but in putting an end to each other's existence, as if Time did not himself do this with sufficient rapidity! What I thought at fifteen years of age I still think—"wars, with the pain of death, which society draws upon itself, are but

organized barbarisms, an inheritance of the savage state," disguised and ornamented by an ingenious institution and false eloquence.

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size:—his prices for them being as follows, viz:

11 inch Revolving bottoms	\$30,	with extra pair of knives,	\$33
11 " Permanent Bottom 28,	do	do do	31
13 " " " 43,	do	do do	48
13 " Revolving Bottom 45,	do	do do	50
15 " " " 50,	do	do do	56
20 " Large size fitted for horse-power 80,	do	do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

A JACK FOR SALE.

THE editor of the Farmer and Gardener, Baltimore, has for sale a small though beautiful and well bred Jack. He was got by Capt. Gordon's celebrated Malta Jack: his dam was a descendant of General Washington's Spanish Jennet. He will be 5 years old next spring, is 46 inches high, straight limbed and finely proportioned. His sire was distinguished for his great vigor and power in serving mares, being known to have done good service to six, in as many hours, and it is believed, that though his son is small of stature, owing to bad keep, that he inherits equal verility with his sire.

Price, \$500.

All letters upon the subject must be post paid.

CONTENTS OF THIS NUMBER.

Notices—of the value of the early Canada Corn—of the importance of the sugar beet culture and manufacture—considerations on the nature of the soil and climate suitable to the beet culture—encouragement to the silk and beet culture in New Jersey—agricultural productions and society in the far west—extracts from A. D. Johnson's able speech on agricultural improvement—productiveness of spring wheat—importance of the silk culture—gold mines of Virginia—diseases of animals—economy and affection of bees—a new motive power—a warrior's opinion of war—advertisements—prices current, &c.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs.	6 50	8 50
CORN, yellow,.....	bushel.	98	1 00
White,.....	"	95	98
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 75	11
" wagon price,.....	"	10 50	—
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 00	3 75
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
" for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 30
Red, best,.....	"	2 10	2 15
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls,.....	gallon.	42	42 1/2
" in hhds,.....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,.	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do,.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	2 06	2 12
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ——— No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank.	VIRGINIA.
Branch at Baltimore,....do	Farmers Bank of Virginia	1
Other Branches,....do	Bank of Virginia,.....do	—
MARYLAND.	Branch at Fredericksburg do	—
Banks in Baltimore,....par	Petersburg,.....do	—
Hagerstown,.....3a	Norfolk,.....do	—
Frederick,.....do	Winchester,.....do	—
Westminster,.....do	Lynchburg,.....do	—
Farmers' Bank of Mary'd, do	Danville,.....do	—
Do. payable at Easton,....2	Bank of the Valley,....2	—
Salisbury,.... 5 per ct. dis.	Branch at Romney,.... 1	—
Cumberland,..... 1	Do. Charlestown,....do	—
Millington,.....do	Do. Leesburg,..... 1	—
DISTRICT.	Wheeling Banks,.... 2 1/2a3	—
Washington, } Banks, 1/2.	Ohio Banks, generally 3a3 1/2	—
Georgetown, } Banks, 1/2.	New Jersey Banks gen. 1 1/2a2	—
Alexandria, } Banks, 1/2.	New York City,..... 1a	—
PENNSYLVANIA.	New York State,.... 2 1/2a3	—
Philadelphia,.... 1a	Massachusetts,.... 2a2 1/2	—
Chambersburg,..... 1	Connecticut,..... 2a2 1/2	—
Gettysburg,.....do	New Hampshire,.... 2a2 1/2	—
Pittsburg,.....2a2 1/2	Maine,.....2a2 1/2	—
York,.....1a	Rhode Island,.... 2a2 1/2	—
Other Pennsylvania Bks. 1 1/2a2	North Carolina,.... 3a4	—
Delaware [under \$5].... 3a4	South Carolina,.... 3 1/2a4	—
Do. [over 5].... 2 1/2a2	Georgia,..... 3 1/2a4	—
Michigan Banks,..... 6a	New Orleans,..... 6	—
Canadian do..... 6a		—

THE SILK MANUAL.

JUST published and for sale by Sinclair & Moore and Robt. Sinclair, Jr., at the Maryland Agricultural Repository, Light near Pratt street, Baltimore, a complete Manual of the Silk Culture, in which plain instructions are laid down for the culture of the Mulberry, the feeding of the Silk worms, management of the cocoons, reeling, spinning and dyeing of the Silk. In fine, it is a perfect Manual, and comprises every department of the business. The rules are arranged in so plain and methodical a manner that every one can understand them, and by a very few hours attention become master of the business. It is clearly demonstrated in this Manual, that largely upwards of \$500 may be netted from an acre in the Culture; and it is a singular fact connected with the Mulberry as adapted to the making of Silk, that poor dry, sandy, or gravelly land suits it best, the fabric made from worms fed on leaves raised on such soil, being greatly superior in elasticity and richness of gloss to those grown on rich grounds. Price—per copy, 50 cents.

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

CYLINDRICAL STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's improved Cylindrical Straw Cutters, of various sizes, adapted to horse or manual power.

The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, have rendered them the most perfect and effective Straw Cutter in this country; they are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realize a profit by feeding to his cattle his corn fodder, which would otherwise in a great measure be lost. These machines are self feeders, the knives of spiral form, and act on a steel bed, in such a manner as to cut with great ease and despatch. The sizes are as follow, viz.

11 INCH BOX, suited to manual power, and capable of cutting 600 bushels of straw per day, being quite sufficient for the usual wants of farmers, price \$30 00

Extra knives for do. per sett, 4 00

14 INCH BOX, suited to manual or horse power: this size will cut 1000 bushels of straw per day, price 45 00

Extra knives for do. per sett, 5 00

20 INCH BOX, suited to horse or steam power, capable of cutting 125 bushels of straw per hour, price 75 00

Extra knives per sett, 8 00

The above named machines are all made with endless leather, movable bottoms; boxes with stationary bottoms are only made to order, being inferior, and a very trifling less in cost.

ALSO FOR SALE,

CORN SHELLERS, with vertical cast iron wheels, will shell 25 or 30 bushels per hour, price 20 00

Ditto Do. a powerful machine, adapted to horse power, and capable of shelling 80 a 100 bushels per hour, price 40 00

1800 PLOUGHS, of various patterns and sizes, including those in general use and most approved, price, 4 50 a 20 00

WHEAT FANS, common Dutch and patent, price \$20 a 25 a 35 00

CULTIVATORS, for Corn and Tobacco, 5 a 6 50

COTTON GINS made to order from patterns, most approved by the southern planters, price \$50 a 150 each.

75 Tons Plough and Machine Castings.

AND IN SHORT,

Every other implement appertaining to the wants of the farmer.

ROBERT SINCLAIR, jr. & CO.

Light near Pratt street whf.

FRENCH SUGAR BEET SEED.

THE subscribers have for sale 200 lbs of white and yellow French Sugar Beet Seed.—This lot of seed was raised last season from French Seed of the finest quality and can be recommended as fresh and pure. Also directions on the cultivation of Beet Sugar.

In store, an extensive assortment of Garden Seeds, European Field Seeds, a large collection of Flower Seeds, and will have early in the spring a superb collection of DOUBLE DAHLIA FLOWER ROOTS, consisting of about 200 superb varieties.

ROBERT SINCLAIR, Jr., & Co.

Jan. 10, 1837. 21. A. P. C.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid ocl

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,

87 Smith's wharf.

P. S. Henry Braden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 41.

BALTIMORE, MD. FEBRUARY 7, 1837.

Vol. III

We insert with pleasure the following memorial to the General Assembly of Maryland, and hope that it may have the effect of eliciting the attention of that body to a too long neglected interest. There is no question in our mind, but that the time has arrived for action, and that, unless something be speedily done to arrest the downward course of things, this state will, ere many years shall have elapsed, present a spectacle as humiliating to the pride of her citizens as it will be fatal to their prosperity and happiness.

The memorial is, we learn, in a course of circulation in the several counties for signatures, and we hope those friends of Agriculture who may have charge of it, will lose no time in discharging the important trust confided to them.

To the Honorable the General Assembly of Maryland.

THE memorial of the undersigned, farmers, planters, and those friendly to the pursuits of agriculture, most respectfully beg leave to represent to your honorable body:

That they have, for a length of time, viewed with feelings of profound regret and mortification, the very depressed condition of the agriculture of the State; nor have they with emotions of less pain seen a portion of her population, urged by dire necessity, abandoning the homes of their parents and the birth places of themselves and children, and seeking new residences in the far west and south-west. Believing, as your memorialists do, that the strength and wealth of the state consist in the prosperity and welfare of its population, and that it behoves a wise and paternal government, so far as in its power lies, to husband, promote, and protect, the interests of its people—and believing, also, that by devoting a portion of the now ample funds of Maryland, to the furtherance of objects in which every agriculturist has a deep and lasting interest—nay, in which the pride, honor, and well-being of the State itself is vitally concerned,—your memorialists would beg leave to make an appeal to your honors in the hope, that in your wisdom and patriotism, you will see the propriety of granting such relief, as will tend to inspire the husbandmen of this good old member of the confederacy, with renewed energies, and a determination to improve the soil, which must be dear to us all. Thus confiding, they approach you with the firm conviction that it will be only necessary to make their wishes known, to ensure the success of their prayer.

It is known to every well informed citizen of Maryland, that most of her soil was originally fertile, and yielded generous returns for the labor bestowed upon its culture—that her climate is highly favorable to the growth and maturity of almost every species of products—that she is blessed with numerous bays, rivers and tributary streams—but while the undersigned are grateful for those blessings—while they turn upon the past history of the agricultural results of the industry and enterprise of the landed interest, the sad spectacle which is presented by contrasting it with their present disastrous condition, but serves to fill them with the unmingled feelings of the profoundest sorrow. By a course of injudicious cultivation, that soil once so bountiful of the products of the earth, has, to a great extent, been reduced to a state of poverty, which almost forbids the hope of remuneration, and industrious and enterprising cultivators, in innumerable instances, have been compelled to seek competence, in far distant places, for themselves and offspring; for the sad reality of exhausted fields, have convinced them, that in the old pursuits of husbandry they can no longer find it at home.

While all parts of the state have suffered more or less from emigration, your memorialists have been credibly informed, that from Charles and St. Mary's Counties alone, property and money to the amount of nearly one million and a half of dollars, have been within eighteen months removed

to the frontier States, and that, in many instances, proprietors have carried off their slaves and other transportable means, leaving their estates not only undisposed of, but absolutely untenanted. The consequences, attendant upon such a disastrous state of things, need not be all innumeraled by your memorialists, as they must be as obvious to your honors, as is the fact, that, if this spirit of removal should not be stayed, lands must continue to decrease in value until they shall have reached a price which will prostrate the landed interest—fields which once blossomed with luxuriant vegetation, and rendered their proprietors prosperous and happy, will become forests—our population will be so lessened as to deprive Maryland of her political importance in the scale of states, and when it shall be too late to remedy the evil, we shall have to deplore the melancholy effects of our listlessness and indifference.

Your memorialists would respectfully ask—Is there no remedy for this cruel evil? They think there is. It is known to your honors, that the attention of the agricultural community has been, for the last few years seriously called to the importance of cultivating the Mulberry with a view of feeding the Silk worm, and more recently to that of raising Beets with a view of making Sugar. For the cultivation of both the Mulberry and Beet, the soil and climate of Maryland, are most happily adapted. Of the profitability of the first of these pursuits, France and Italy bear the most eloquent proofs—their husbandmen, from the wealthy land-holder to the more humble peasant, have each found in it a source of great profit; and of the advantages of the culture of the Sugar Beet, the successful enterprise of thousands of the agriculturists of France and Germany, is the strongest evidence of the truth of the fact that could be desired.

Already the culture of silk, under the auspices and patronage of the governments of the eastern states, has assumed an importance, as an item of agricultural products, that promises to be productive of the happiest effects. In those states, several of the legislatures, some years since, took a just view of the subject, and, by offering premiums and granting bounties, encouraged their citizens to engage in the culture. Thus animated and encouraged by the parental care of those legislative bodies, their agricultural communities entered into the culture with becoming spirit, and now present to their brethren of the other states an example worthy alike of their emulation and praise. While the farmers there have sedulously set themselves to work to produce the raw material, individual enterprise, and corporations, have been equally busy in building up manufactories for the fabrication of silk goods, thus affording ample markets for the products of their agriculturists. And from the best information to be obtained by your memorialists, they are led to believe that the Silk culture in the section of country to which they have referred, has not only been greatly increased, but has been found to be highly profitable; and is likely to prove a source of permanent wealth to those engaged in it. It, therefore, appears to your memorialists, that, in a climate and soil like those of New England—the first cold and inhospitable—and the latter, naturally much inferior to that of Maryland—the culture of the silk has been found so eminently conducive to the prosperity of its citizens—surely in this state, where we are so peculiarly blessed with an auspicious sky, and land, either generous or kind, every thing is hoped for, provided your honors who are the guardians of the public welfare, will extend a beneficent hand in furthering a branch of labor, which offers so many inducements to engage in its pursuit. Various authors who have written upon this subject all concur in representing it as lucrative, and nothing is wanting to urge our citizens to engage in it with spirit, but the countenance and support of the state government. Should your memorialists be asked, why should this be necessary?—They will answer, that as it is a difficult task for even the most enterprising and foresighted to abandon old habits and customs, and modes of culture, and that it requires a stronger stimulant than prospective gain to induce the agricultural community of Maryland, they fear, to embrace the pursuit of this

branch of industry, unless the legislature by its fostering care should offer premiums and bounties to withdraw them in part from the time-honored, though profitless occupations of their fathers.

Influenced by such motives, and actuated by kindred principles, with a foresight which is alike honorable to their heads and hearts, the lawgivers of our sister states of New England, have set an example that has already produced a state of things which is as promotive of individual blessings, as it is honorable to the pride of those states, and conducive to their wealth. Nor have they been content to stop in the furtherance of this great interest; for casting their eyes around, and looking to the future, with the forecast of statesmen and patriots, they are there, in all directions, encouraging the culture of the Sugar beet, with a view of adding the manufacture of Sugar, from this root, to the other branches of their industry.

Beholding these things at a distance, and placing a just estimate upon their intrinsic value—properly appreciating their importance to private as well as public prosperity—your memorialists would be wanting in state pride, and deaf to the injunctions of experience, did they not appeal to your patriotism to make an effort to rescue the fame of Maryland and the welfare of her citizens, from the dangers that surround them.

At a period like the present, when the coffers of the state are full—when with a laudable and just ambition she is generously engaged in promoting great objects of internal improvement, your memorialists cannot believe for a moment, that you will withhold your countenance and support from the agricultural community—from that community who is at once the pride and strength of Maryland. And they, therefore pray, that your honors will make such appropriations, as will set on foot,

1st. An agricultural school and pattern farm.

2dly. A general State Agricultural Society, to be formed by delegates from county establishments.

3dly. County Agricultural Societies, to be voluntarily formed.

4thly. That the State should grant bounties to those engaging to certain extents in the culture of the Mulberry, making of Silk, and in the culture of the Sugar Beet, and the manufacture of Sugar therefrom—and

5thly. That the State should appoint an Agent to collect and prepare all available information, relative to the last branch of industry, and that the expense of publication should be borne by the state; which when published, to be circulated gratuitously for the benefit of the people of Maryland.

Another plan suggests itself to your memorialists, the which they submit in all due respect to the superior judgment of your honors, leaving it to your wisdom to adopt either, or to frame some other suitable plan, calculated to answer the proposed end, as to you may seem most fit and proper.

A Pattern Farm and School for each county, or districts to be laid off by law. At these establishments the students or apprentices, in addition to the usual avocations of the farm and school, should manufacture the implements of husbandry for their own use.

The capital to be raised by subscription to an incorporated joint stock company, by the inhabitants of the several counties or districts, which should not exceed one thousand dollars for each thousand white inhabitants, and in no county should the capital exceed thirty thousand dollars.

The stockholders after ten thousand dollars shall have been subscribed in such county, or district, to meet and choose eight managers, and annually thereafter to make a similar election. The state to choose four managers, making in all twelve managers to each incorporated company. These managers to select a headman or superintendent, and all necessary assistants to carry on the business of the farm,—and also to appoint a professor and such assistant tutors as may be required.

The managers thus to be appointed, should meet monthly and give such directions and instructions as might be called for by the interests of the institution.

At these schools students might be admitted, or apprentices taken, in such numbers as might be thought proper, who should regularly serve until twenty-one years of age, and be governed by the same obligations and laws as now obtain in cases of other apprentices.

When any such school or farm shall have been organized and put into practical operation, and the sum of ten thousand dollars actually paid in, on a legal notification to that effect, being made known to the state treasurer, he should be authorized to pay into the hands of the treasurer of such association, a sum of money equal in amount to the interest of the capital thus raised by such county or district: or in the event of a larger capital being raised, that he should pay such sum as would be equivalent to the interest thereon, which interest should be paid annually or semi-annually.

The sum or sums of money thus to be raised by the counties or districts, to be exclusively appropriated to the objects connected with the establishments respectively.

Periodical accounts of all expenditures to be made to the State treasurer, to be by him laid before the legislature at their annual sessions.

All profits arising from such establishments to be biennially divided among the several stockholders, and the property of such incorporations to be exempt from taxation, either to the state or the county in which they may be respectively located.

To your memorialists it appears most evident, that such Institutions are loudly called for by the best interests of the state, and they feel confident that your honors will coincide with them in the opinion, that the period has arrived when it is imperiously necessary that something must be done. They conceive that by the establishment of those schools and pattern farms invaluable benefits will ensue to the agricultural community and to the state at large: they believe that by a judicious arrangement and economy in their organization, and in the manner of carrying them on, no other burthen will fall upon the state than the first outlay should you adopt the first plan suggested—and in the event of your fixing on the second, that nothing farther than the specified *interest* money will be annually required, as it appears plain to your memorialists, that the *labor* of the farm could, and would be, performed, in the adoption of either plan, by the students or apprentices.

It appears also to your memorialists highly proper, that in these establishments there should be engaged, 1st, a competent and intelligent farmer: 2d, a lecturer upon Chemistry, as applicable to the business of husbandry: 3d, a gardener skilled in the proper culture of the Mulberry: 4th, a person thoroughly acquainted with the management of Silk-worms and the conversion of the cocoons into sewing Silk, and another acquainted with the beet culture and the mode of making Sugar from that root.

The organization of the Agricultural Societies, which your memorialists propose, could not be onerous to the state treasuries; because the outlay would be restricted by the *interest* of those who should be members of them. In Massachusetts, with the view of stimulating agriculturists to form such associations, the state has generously enacted, that for every dollar subscribed by each of its members, she will give a like sum. The aggregate amount thus collected is, periodically, distributed in premiums—some to the owner of the best cultivated farm, of given dimensions; others for the greatest quantity of corn raised upon a certain number of acres. So also, the wheat and rye grower, the raiser of the best crop of potatoes; the breeder of the best horse, cow or hog; the owner of the cow, feed considered, which yields the greatest quantity of milk and butter in a year; the person who raises the greatest number of Mulberry trees, and the raiser of the most silk, have each and all their inducement, in the shape of bounties and premiums, to animate them in the noble contest of agricultural rivalry. Your memorialists would further state, that they are informed, that while the annual burthen upon the treasury of the state of Massachusetts is comparatively small, compared with the magnitude of the good effected, the happiest results have been produced. Each individual there, engaged in the pursuits of husbandry, feels himself called upon by that ennobling sentiment—moral obligation—to excel his neighbor,—and thus, by the excitement of a spirit of rivalry, virtuous in its conception, and holy in its objects and prosecution, have the legislature produced a feeling and a pride, whose benefits are to be seen in the fruitfulness of a comparatively barren soil, and the prosperity and happiness of the people.

With this exposition of their views, your memorialists respectfully ask your Honorable body, to take the subjects treated of in this memorial, into your serious and dispassionate consideration, and to grant them such relief as to you may seem meet and proper, and they as in duty bound will ever pray.

RAZOR POWDER.

I never shave myself without a strong feeling of gratitude to our townsman, Mr. Child, for his invaluable Razor Powder, and without a strong resolve to make it better known. I feel it a duty both to him and the public to bear testimony to the excellence of his invention in securing that great luxury, a keen and smooth cutting Razor.

It is only to be sprinkled on a strap or any smooth surface, when it produces the most exquisite and enduring edge.

It is to be had at J. Gould's, No. 202, Baltimore opposite Hanover street.

THE SILK CULTURE IN VIRGINIA.

We derive great pleasure in being able to lay the following evidence of the growing importance of the Silk culture in the Valley of Virginia, first because we believe that it will, if properly encouraged, add much to the value of the products of that high-minded old member of the union; and secondly, because the example will, we trust, tend to induce other parts of the state to emulate the good work of their brethren in the valley. We are gratified also, to learn by this paragraph, that the culture is likely to find favor in the legislature. This latter circumstance we hope most sincerely will stir up the legislatures of other states to take counsel and follow the path of duty which will thus have been marked out for them.

SILK—The lady of Mr. Simon Carson, of this county, has presented us with a skein of sewing silk, raised from the silkworm and manufactured under her own superintendence. Mr. Amos Lupton has also shown us two samples of silk manufactured on his farm in this neighborhood. They are beautiful articles, and are pronounced by our merchants to be of an excellent quality.

Both of the above mentioned individuals, we learn, are making preparations for an increased production of silk during the summer. Mr. Lupton will try the experiment of raising two crops; the first the produce of about one hundred thousand worms.

The common mulberry tree of this Valley was used in these experiments, and the result has proved that, for sewing silk, it produces at least as good an article as that of the Chinese or Italian mulberry. Indeed, so well convinced of this are those engaged in the silk culture at the north, who have seen a sample of the Valley mulberry, that orders have been forwarded to this neighborhood for cuttings and seed. One gentleman has received an order for all the seed he can procure.

The importance of the silk culture may be inferred from the fact, that the amount of manufactured silks imported into the United States during the year ending on the 30th Sept. 1835, was \$17,470,000! A little enterprise is all that is wanting among our agricultural community to secure a fair portion of this large amount of money. We hope our farmers will not let it slip through their fingers without an exertion to secure it.

This subject has already attracted the attention of our legislature. The committee of Agriculture of the House of Delegates has been instructed to inquire into the expediency of providing by law for premiums to be paid by the commonwealth for the encouragement of the culture of silk. Several of the states now give premiums on the raw silk—Massachusetts, we believe, gives \$2 on the pound. It deserves the favorable consideration of the legislature.—*Winchester Republican*.

ALTERNATION OF CROPS—DRAINING—IMPROVEMENT OF STOCK—HORTICULTURE.

Extracts from the speech of Achilles D. Johnson, Esq., delivered before the Central Agricultural Society and Mechanic's Institute of Lynchburg, Virginia.—Concluded.

4th. *Alternation of crops.* This is a subject of vital importance to the improvement of our husbandry—and has been too little attended to by our farmers—but is beginning to be more so. The introduction of clover and grass has contributed largely to the beneficent change, by inducing the farmer, in mercy, to spare his devoted soils, and to suffer them, a little, to take care of themselves. We have been particularly deficient in the cultivation of root crops, to which clover and grain succeeded admirably. In the Northern States, and indeed in every country where cultivation is rapidly advancing, these constitute a great item in the rotation of crops. They also form one of the great articles of food, as well for stock as for people, and are indeed an important article of commerce. But their great advantage is in the maintenance and multiplication of stock, which in time contribute to an extension of the means for the improvement of the soil. Should we not then enlarge the sphere of these—not to be sure on all our fields, but on the rich lots in the vicinity of our houses—on our Tobacco lots, which year after year receive the greater portion of our improving means in the cultivation of that royal plant? As I have failed to notice in its proper place, the best application of the husbanded aliment of plants, I will notice it here. The object is to apply and to retain all its gaseous and fluid properties. It should be added then in its freshest state, before putrescence occurs. For Indian Corn or for root crops it should be laid on either in drills, or broadcast, and ploughed in, in the fall—For small grain, it should still be ploughed in, and not administered on the surface. In this way it supplies equally sustenance to the roots by its fluids, and by its gaseous evaporation to the tops. I admit that circumstances might vary this rule to advantage. Where young clover is expected to fail, and on meadows well set, but poor, surface applications are proper. But to secure the greatest good to the soil, in the general, certainly internal applications are best. In the material world, after production, nature is ever going on with her putrescent operations, in which the gaseous properties and fluids of reproducing matter escape. It should surely be applied then in its freshest condition.

5th. *Pasturage.* I think many of our farmers have erred greatly, as well in pasturing some lands too much, as in not pasturing others sufficiently. Too much pasturage has indeed been one of the great evils of our agriculture. Meadows ought to be pastured in dry seasons particularly, after having been mowed. It renders the soil more dense in winter, and preserves the roots of the grass from exposure. The myriad of insects which live and multiply among the fibres of the roots during the summer, are thereby destroyed. Yet pasturage even here should cease at the proper time. Cattle will nibble and nibble at the grass, till they devour it by the root. I am clear-

ly of the opinion that light clovered land should be pastured moderately in autumn. In this case, too, the roots of the clover will be preserved from the freezing process of winter. I have not unfrequently seen, at the breaking up of winter, the roots of clover pointing upwards. Moderate pasturage, too, prepares a light soil for wheat or rye, by making it more dense.

6th. *Draining.* This is an operation to which the people of Upper Virginia particularly, are mostly strangers—except on their wet meadows. Under draining is now much used in other countries, as well on upland as on meadows, for the acceleration of the escape of superabundant water. It is used on lands which are constantly cultivated—and which by their level surface or stiff argillaceous quality, would otherwise retain too much moisture. The roots of plants must have air as well as water—and this operation discharges the abundant moisture, and induces the deficient atmosphere.

7th. *Stock.* We should improve the blood and quality of our cattle, and increase our attention to sheep husbandry. Wool is one of the greatest staples of commerce in the world—and cattle are one of the great means of improvement of the soil—both are eliciting the most aspiring attentions of the best farmers in every country. I have recommended on another occasion the growth of as much stock as every farmer's clear productions of the soil will permit, and again recommend it as the most practicable requisite of improvement.

8th. *Horticulture.* Orchards are surely the great, but refined, elegant, and proper luxury of every farm and every country. They are indeed the accomplished ornament which sets off every plantation, and adds health, spirits and moral beauty to every domicile. Nor are their balmy breath and beauty in blossoms, or their aromatic perfumes and crimson blush in autumn, their only recommendations. In some sections of our own country, the melting peach, and spicy apple, and saccharine pear are cultivated as extensive and profitable articles of city luxury and trade. In some of these they have been grown to a perfection, to which our notions of them here, are but a beggarly account. Let us turn our attention, then, more than we have done, to the grafting and propagating of better fruit, and to a more preservative treatment of our orchards. The man who, under the influence of a mania, could lay the axe to the root of a beautiful and chosen orchard, must be a moral maniac indeed—as bad as those whom he seeks to reform.

ON THE DISEASES OF DOMESTIC ANIMALS—No. V.

The medical treatment of Glanders—With regret we must confess that nothing satisfactory can be said on the medical treatment of glanders. There have been a thousand pretended specifics, and even regular and scientific practitioners have flattered themselves that they have discovered this chief among the veterinary desiderata, a cure for glanders. Some horses have apparently recovered, and that under every stage of the disease except where the lungs were much tuberculated, and abscesses had appeared. They have recovered under every mode of treatment, and without any medical treatment. Hence it has

happened that almost every drug, in its turn, has been considered as a specific, and every one has sunk into disregard and disuse. The only cure, the cheapest and the best, and that which in the majority of instances you will strenuously recommend, is the bullet or the axe.

The first condition necessary towards effecting any improvement in an animal affected with this disease, is its removal into a pure atmosphere. Glanders is the peculiar malady of the stabled horse. Then it is evident that the preparation for, or the foundation of a cure, must consist in the removal of every exciting cause of the disease. The horse must breathe a pure and cool atmosphere. He must be turned out, or placed in a situation equivalent to being turned out, or that of which there was only a probability of accomplishing under the most favorable circumstances, becomes absolutely impossible. We have said that, the affection of the nostril, in its earliest form and appearance, *is not the local symptom of a constitutional disease*. The disease is at first purely a local one, and it long continues so. It is only when the part is debilitated, disorganised by the continuance of inflammatory action, or the local inflammation runs its usual course, that the vitiated secretion is absorbed, and the constitution empoisoned. Our bad management produced that local inflammation, and that management must be radically reformed ere we can remove the inflammation or its consequences: therefore we say, that the breathing of a cool and pure atmosphere must constitute the foundation of our remedial practice.

The majority of those who pretend to cure glanders, recommend that the horse should be turned out, after he has taken a sufficient quantity of their medicine. In fact, if any good is accomplished, it is principally or entirely by this turning out.

The danger of contagion in turning out—A salt marsh is, above all others, the place for this experiment: but there is a great deal of caution required even here. No sound horse must be in the same pasture or in a neighboring one: the matter conveyed by the wind may communicate, and has communicated, the disease. The fences or gates may receive a portion of the matter, which may harden upon them, and many a month after, become a source of mischief; nay, we may, perhaps, be justified in saying, that the virus may cling about the very herbage and empoison it. I should hardly dare trust even cattle and sheep with a glandered horse, for the experiments are not sufficiently numerous or decided as to the exemption of these animals from the contagion of glanders: at all events we should fear the reception of the virus on an abraded surface. We should, therefore, have a little field devoted to the glandered horse, and, to him alone. I would not even admit other glandered horses, for they might be reinfected.

The impossibility of local applications—We return to the nature of the disease—chronic local inflammation, terminating in constitutional affection. Can we get at this local inflammation, and either by some emollient or sedative application, or by that which will produce a greater temporary irritation, but of a different character, successfully attack it? Why,

although we know it is an affection of the schneiderian membrane, we do not know what part of it, and therefore we must apply our injections haphazard: hence it is better to use no injections, and least of all those acrimonious ones, which can only torture the animal, and hasten the termination of the affair.

Counter-irritants—Blisters, or setons, along the nasal bones, or the junction between them, and the upper jaw bones, or over the frontal sinuses, if the horse should give indication of pain when pressed there, are far more surgical-like measures, and should rarely be omitted in our treatment of glanders. There we are properly resorting to the use of counter-irritants: but perchance the seat of this local inflammation may not be within the reach of these stimuli, however powerful.

Tonics, particularly the sulphate of copper, (blue vitriol)—Glanders being a debilitating disease, tonics would appear to be indicated to sustain the system against the insidious effects of this long-continued irritation: or to excite another, healthier, and more powerful action, before which the other must succumb; but then, can we find a tonic which, while it has effect on the constitution generally, exerts its chief power on some particular part, and that part the schneiderian membrane? I believe that we have this general tonic with a peculiar local determination, in the sulphate of copper. Its effect in healing abrasions and arresting nasal gleet, is undeniable. How should it be administered? Not in sores which alter its character and depress instead of supporting, destroy instead of rousing, the principle of vitality. You must not, by incautious and rude assistance knock the staggering man fairly down. Sulphate of copper in small sores, a drachm, or two drachms, daily, or twice in the day, combined with some vegetable tonic that does not decompose it, and especially combined with an aromatic and stomachic, is worth trying.

Mr. Irvine has some faith in the sulphate of iron, (green vitriol); he gives it, however, not in nauseating, overwhelming doses, but dissolved in the water, so that the horse may drink a little of it at a time, and as often as he pleases. He says that the horse not only soon becomes habituated to the brackish taste of the iron, but prefers the drugged beverage to his common drink. I would urge you to practice every legitimate, but not cruel experiment; for, no doubt, nature has provided a remedy for every disease, even for those which are the consequences of our own imprudence or mismanagement; but never torture a poor animal wantonly in a hopeless case. Never suffer slitting the nostril, or scraping the cartilage, or firing the frontals and nasals, or injecting pepper or mustard, or corrosive sublimate, or sulphuric acid (oil of vitriol).^{*} There are brutes in human shape who have done so, and continue to do so. Pray ye, avoid them.

I will not detain you with a list of the medicines and combinations which have been used in the attempted cure of glanders. It were to needlessly occupy your time, and the columns of this paper. The few hints which have been suggested, will be sufficient to guide you so far as a

^{*} Injections of weak solutions of Chloride of lime would, we think, be serviceable.—Editor Farmer and Gardener.]

safe and practicable path can be traced over so intricate a region.

CORN PLANTER.

We lately published an advertisement of a corn-planting machine, invented by Mr. Charles R. Belt, near Georgetown, in this District. Since then, we have seen a letter from a highly respectable and practical gentleman, of Prince George's, on the excellence of the machine, which in justice to the inventor, we insert the following extract from:—*Nat. Int.*

"I had hoped to have had the pleasure of seeing you, and giving you ocular demonstration of the regularity of my whole field of corn, planted altogether (but with a trifling exception, and that in some measure to test the machine itself) with your corn-planter. I shall now insist on your coming to see it, as I think I can boast of a field to be excelled by few that I have seen this year. I am so pleased with its operations that I would not upon any account be without one. To the Northern, Middle, and Western states, I conceive it to be as great a discovery as Whitney's Cotton-Gin to the cotton-planter of the South, and if, as you state in your note, you have adapted its principles so as to apply it to the planting of cotton, of which I have no doubt, I congratulate you most sincerely."

TOBACCO PLANTERS' CONVENTION.

The Convention of Delegates from the Tobacco Planters of the states of Ohio, Virginia and Maryland, assembled at the City Hall in the city of Washington, pursuant to adjournment, on Tuesday, the 24th ult.

Governor Barbour, of Virginia, was called to preside over the meeting, and John Mercer, esq. of Maryland, appointed Secretary.

The President, on taking the chair, addressed the convention, and in an appropriate and eloquent manner explained its objects.

After a few remarks by another gentleman, Mr. Dodge, the consul of the United States for the port of Bremen, who was present by invitation, gave to the convention some valuable information on the subject of the Tobacco trade, with which his position and opportunities have made him thoroughly acquainted.

The Hon. Daniel Jenifer, chairman of the committee appointed for the purpose, made the following report:

The committee appointed by resolution of the convention of Tobacco Planters, held in this city on the 2d and 3d of the present month, to "ascertain the quantity of tobacco exported annually from the United States to foreign ports; the increase or decrease of the same from the year 1792 to the present time; also the amount of duties imposed in foreign ports; together with such other information as they might deem proper to communicate," have availed themselves of such information on the different subjects as they could obtain, which they now ask to submit to the consideration of the convention.

By a statement on file in the Treasury Department, which is a similar one to that presented to the convention at their last meeting, it appears that the quantity of tobacco annually exported from the United States to all foreign ports from the year 1790 to 1835, inclusive, has varied

much less than might have been expected, and more especially when formerly the whole growth of this article was confined to the states of Virginia and Maryland, whereas, at the present time, in addition to those two states, considerable quantities are grown in Kentucky, Ohio and Tennessee, which, together with Pennsylvania, Connecticut, Indiana, and Missouri, united, are estimated to produce nearly, if not quite, as much more. Still the exports have seldom exceeded 90,000 hogsheads, and 3,900,000 pounds of manufactured; the whole of the surplus being consumed within the United States, keeping down the exports to nearly what they were in 1790.

During the three years immediately preceding the French revolution, the average annual exports from the United States were 111,030 hogsheads, and of manufactured 112,260 pounds.

From the year 1793 to 1800, inclusive, the average annual exports were 70,308 hogsheads, and of manufactured about 200,000 pounds.

For the year 1801, the exports went up to 103,758 hogsheads, and of manufactured to about 2,000,000 pounds, but decreased the next year to 77,721 hogsheads, and continued at near that average until the years 1807 and 1808, when the Berlin and Milan decrees, and the embargo brought down the exports to less than 10,000 hogsheads.

From 1809 to 1812, inclusive, the annual average was, of exports, 66,659 hogsheads. The two succeeding years, being those of the late war with Great Britain, the exports were almost nominal, being less than 4900 hogsheads.

From 1815, the first year of peace, up to 1835, the exports (with the exception of the years 1827 and 1832) have averaged about 90,000 hogsheads, and 2,500,000 lbs. of manufactured tobacco.

The years 1827 and 1832, the exports exceeded those of all former years since 1792 to the present period. The amounts being for the first, 100,025 hogsheads and 2,637,411 lbs. and the latter 106,806 hogsheads, and 3,456,072 lbs. being the largest number of hogsheads exported from the United States since that year, which amounted to 112,428 hogsheads.

In 1835, the exports were 94,353 hogsheads and 3,817,854 lbs. which may be taken as a fair average of the past and present year.

Although the number of hogsheads exported in 1792 and the years immediately preceding were greater than for the last ten years, yet, when it is considered that the weight of the hogshead is considerably increased, as also the quantity of manufactured tobacco, it is believed that there is but little difference in the number of pounds exported between the former and present period.

Weight of Tobacco.

In 1790, and for some years subsequent, the average weight of a hogshead was about 1000 lbs. At the present time, those from Kentucky average about 1300 lbs.; and, although the finer qualities do not exceed, if equal, the former weights, yet, much the largest quantity exported being coarser and heavier, it is estimated that the average weight of all kinds, from Virginia, Maryland, Kentucky, Ohio, and Tennessee, is about 1200 lbs. to the hogshead. This, in addition to the

increased quantity of manufactured tobacco, will show but little difference in the amount of exports between the former and present period.

Prices.

There has been a considerable diminution in the prices of our tobacco from the year 1800 to the present time, with the exception of the four years immediately succeeding the late war with Great Britain; during which it sustained an average of about \$13½ per hundred lbs. From 1800 to 1809, the average price for those ten years was \$6 5-8 per hundred lbs. whilst, for the same number of years to 1835, inclusive, it has not been quite \$5 1-8 per hundred lbs. notwithstanding the quantity exported has not increased.

Value of Exports.

Prior to the year 1802 the value of the exported tobacco has not been ascertained. But in that year it amounted to \$6,220,000; in 1816, just after the war, to \$12,809,000; and in 1835, to 8,250,577, of unmanufactured, and of manufactured \$357,611, making an aggregate value of \$8,608,188. Thus, the value of annual exports from the United States of this article alone, under all the disadvantages of onerous foreign imposts and restrictions, may be put down at near \$9,000,000.

With these facts before them, the committee do not see that the depressed state of the tobacco market can be attributable to the increased quantity produced in, and exported from, the United States. They must, therefore, look to other causes for the present reduced price of that staple.

Prior to the American revolution, all Europe depended on us for supplies of tobacco; but the war cutting off this resource, their attention was turned to its cultivation, since which period it has been more or less grown over the whole continent; the quantity, then, produced at the present time, your committee have no means at hand of ascertaining. It is, however, not to be denied that such is the inferiority of its quality, that it does not come in competition with the tobacco exported from the United States; but, from the duties and restrictions imposed by foreign governments and their agents upon the American produce, the peasantry are compelled to use it, to the exclusion of the latter, except to a limited extent.

The duties and restrictions in foreign markets on American tobacco are enormous, and in many ports in Europe amount to a total prohibition—more particularly in England, France, and the interior of Germany. If those duties and restrictions were so modified as to bear a fair proportion with numerous articles admitted into the United States from those countries, it is believed there would be a much greater demand for American tobacco abroad, and the prices necessarily increased.

Although the duties paid in Amsterdam, Rotterdam, Bremen, and other ports of Holland and of Germany, on the Atlantic, are nearly nominal, yet tobacco cannot be introduced into the interior of Germany, which consumes the greatest quantity, without paying a duty of 11 Prussian dollars upon the hundred-weight of manufactured tobacco, which is about equal to \$7 40 American, and upon unmanufactured, which general-

ly goes in hogsheads, of 5½ Prussian dollars, equal to about \$3 40 American, upon the hundred weight, which is one hundred per cent. upon the hundred-weight, which is one hundred per cent. upon the average price of 100 pounds of tobacco shipped from the United States.

When it is considered that the consumption of American tobacco in Germany and Holland is estimated at 53,000 hogsheads annually, (40,000 of which are consumed in Germany alone,) which are more than one-half the whole exports from the United States, we cannot be wrong when we attribute the present depressed state of the tobacco market to the duties and restrictions exacted abroad.

The quantity of tobacco grown in France during the years 1818, 1819 and 1820, (the only years we have correct data for,) averaged about 240,000,000 pounds, which, allowing 1000 lbs. to the hogshead, would be 25,000 hogsheads. The present exports from the United States to that country do not exceed 7000 hogsheads, and their whole consumption may be estimated at 35,000 hogsheads, and there, as in Germany, the peasantry are compelled to use their inferior miserable stuff at an exorbitant price, mixed with a small portion of American product.

From a statement, made out with great care and labor by Joshua Dodge, esq. American consul at Bremen, to whom we are indebted for much valuable information on the subject, it appears that the quantity of tobacco imported into that port from the United States, nearly all of which goes into the interior of Germany, from the year 1828 to 1835, has varied but little. Thus, it is apparent that the exports from the United States, and imports into foreign markets, have not increased so as to produce the present depression.

It is a remarkable fact, the cause of which we have been unable to account for, that the duties exacted in Holland and Belgium, on Maryland tobacco, are 14 per cent. higher than those paid on the same article from "Virginia, and all other North American states." The same difference applies to the transit duty through Holland and Belgium, and which is confined to Maryland tobacco alone.

The foregoing are the principal facts the committee have deemed proper to present to the consideration of the convention; and believing that the present state of things operates unequally and injuriously to the tobacco planting interests, which is not experienced by any other class of our citizens to the same extent; and looking at the annual value of the exports of tobacco from the United States, which at present exceeds \$8,500,000, they confidently trust that some means will be adopted by the general government, which alone can remedy the evil, to secure and protect the tobacco interests of the United States abroad, in common with those of her other citizens. They therefore respectfully recommend the adoption of the following resolution.

Resolved, That a memorial be presented to the Congress of the United States, signed by the President and Secretary of this convention, in behalf of the tobacco planters of the country; praying that such means may be adopted as may be best calculated to promote the tobacco inter-

ests of the United States, and relieve the planters from the oppression and onerous burdens imposed by foreign governments upon that article of commerce, particularly in those countries from whence their exports are admitted into the United States free of duty, or at a reduced rate.

DANIEL JENIFER, Chairman.

The above report having been read, was unanimously adopted.

On motion of Mr. Mercer, the proceedings of the convention were ordered to be published in the newspapers of the District of Columbia.

The meeting then adjourned, to re-assemble at any time when a call for that purpose shall be made by the President of this convention.

BET CULTURE.

Extracts from De Fontenelle's Manual

[Continued.]

The Preparation of the Soil.

It has long been ascertained that no ground can receive, many years in succession, the same plant, without destroying gradually the power of vegetation of this plant in it, by enfeebling it each year: thence came the belief that the ground was exhausted, and, in consequence, the absurd system of fallow grounds. The most reasonable doctrine to which experience has given support, establishes the fact that this exhaustion is relative to the particular plant which had been cultivated on it, and even that only temporary; so that by alternating in the same ground the cultivation of different plants, we may, at the end of a certain time, cultivate upon it again, and with the same profit as at first, that which, sown without the intermediate culture of other plants, would present but a sickly vegetation.

The culture of the beet must necessarily make a part in a system of rotation of crops. It is perhaps to this necessity being too often neglected, that we must attribute the ruin of different articles. The beet requires a very loose soil.—Its preparation will depend on the crop that preceded it. Thus, when the beet is to be sown after a crop of grain, it is necessary to give it two and even three deep ploughings—the first in winter, the third at the time of sowing.

M. Dubrunfaut, who gives many examples of a succession of crops, proposes one of a three years rotation, in which he makes the cultivation of the beet to follow a crop of potatoes. This plant, having the effect of breaking up the ground, may save one ploughing.

The rotation most suitable for the culture of beets, according to M. Mathieu de Dombasle is one of four years, as follows: corn, beets, barley or oats, and clover.

The observation made a long time since, that beets manured grow larger than those raised without manure, while, under the same volume, they contain less sugar, has led some persons to think that manure diminishes the quantity of sugar which was supplied by nitre of potash, which is found sometimes in the beet, especially when the ground in which it sprouted is mixed with plaster. But this belief was evidently erroneous: there is no longer a doubt on this point, now that we know that the largest beets do not always contain the most sugar.

It is unnecessary to remark that manures do not all act in the same manner, but will vary according to the nature of the soil on which they are spread. The state of decomposition in which the manure that we use, is, at the time, and the property they have of becoming decomposed in a longer or shorter time, should also have an influence on the time at which we spread them.

Among manures, those which are considered best, are those taken from the stable and poultry yard. We must take care to use them fresh. They should be put on the ground before winter, and spread over it between two ploughings. These manures which are commonly mixed with straw, make the soil light, break it up, and render it more permeable to the roots, and have beside the advantage of acting on the soil, by reason of their slow decomposition, during many years.

We use with advantage, to manure cold and sluggish lands, the residuum obtained by the manufacture of sugar, such as animal-charcoal, and skimmings. The pasturing of sheep on lands of this kind, also furnishes a very fertilizing manure.

When at harvesting beets we cut off their collets on the ground, as we call it, in speaking of the manner of harvesting them, the leaves, thus separated, make a considerable mass. It is customary to leave them on the ground as manure, and they are generally considered as supplying a good demi-dressing. It is the same with the waste of the manufacture, such as the radicles, the pieces of the neck, and the pickings which are taken from the beets in cleansing them for the rasp.

In Flanders they use a particular kind of manure, known under the name of Flemish, which is a mixture of solid and liquid substances. This sort, which is used in a state of complete decomposition, must not be put on the ground till the time of sowing, sometimes even a little after. It hastens in a remarkable manner the vegetation of the beet, retarding, however, its maturity. The green of its leaves is very deep; they are more abundant and larger; they dry and fall off very late. The roots themselves grow larger, but they are always more watery.

Experience has shown that in France the greatest product of a good soil may amount to 50,000 kilograms* to the hectare. In a poor soil it will not be more than from 5 to 10,000 kilograms. The medium product, according to a table given by M. Dubrunfaut from the amount of the product of ten different harvests, was nearly 24,000 kilograms.

The Sowing.

The choice of seed says M. Chaptal requires much caution. A good cultivator ought to raise them himself. The most vigorous and healthy plants must be selected for seed-bearers: they must be transplanted at two or three feet distance from one another, in a good exposure, and sheltered from the winds, which may break

*The kilogram being a little more than two pounds, a hectare a little over two acres English, it may be called 50,000 pounds an acre, the kilogram to the hectare being about as the pound to the acre.

their stems. In the month of September when the seed is ripe, we cut the stalks, and when dry, the seed is detached from them with a stick, or with the hand. This seed is to be spread on cloths in the open air, to complete the drying, without which there is risk of its being heated. The fragments of stalks are separated by fanning, and the seed is preserved by keeping it safe from all moisture.

The plants furnishing the seed also contain sugar in sufficient quantity to be used with the others.

The sowing is to be done in the first pleasant days in Spring, when there is no longer any danger of frost, which in our climate arrives commonly at the end of March, or the beginning of April. It may be sown much later. Thus it happens, sometimes, that the seed is put in the ground in the month of May, or even in the first days of June; but this is only when the first sowing has failed, and the cultivator determines to take the chances of a second. Sown too soon while the earth is yet cold and moist, the seeds are apt to rot: on the other hand, too late, they are in danger of suffering by drought. In that case, the leaves of the beets, as they develop, cannot pierce through the crust which is formed on the surface of the soil. The time above mentioned is mostly free from both these inconveniences: the earth, in fact, retains yet a sufficient degree of moisture, and the action of the solar rays becoming every day more lively, the seed is in circumstances most favorable to germination. Too early sowing, besides, presents another inconvenience, in giving rise to the production of a crowd of parasitical plants, which impede the development of the beet, make numerous hoeings necessary, and thus increase the expense of cultivation. If a frost happens after the plant has sprouted, it becomes indispensable to plant anew, the seed being destroyed by a temperature below zero.† It will be the same if by a series of too abundant rains the seed rots in the ground. These accidents, which occur very frequently, are the cause why we ought to count in each crop the half in a given quantity of the seed at least necessary to be added.

M. Chaptal fixes the quantity of seed necessary to a hectare at five or six kilograms, which will make, by computing as above, fifty per cent. addition, seven and a half to nine kilograms. M. Dubrunfaut puts the quantity of seed for the same space of ground at fifteen kilograms.‡—

† Zero in Reaumur's thermometer is the point at which water freezes, corresponding to 32° Fahrenheit.—*Trans.*

‡ Kilogramme, a thousand grammes. The dictionary of Laveaux says the kilogramme 'contient, 1000 grammes, and revient au poids du marc, 2 livres, 5 gros, 49 grains,'—is 100 grammes, and, in poids du marc, 2 lbs. 5 drachms, 49 grains. The poids du marc has 16 oz. to the lb. The French ounce contains 2 drachms more than the English, and the livre therefore more than our lb., that is 18 oz. English. The kilogramme is therefore 2 lbs. 4 oz. 5 drachms, 49 gr. 1 gr. (Fr.) is 162 of a drachm.—30 grs. of English weight to a drachm, (60 apothecaries) gives 17 43-100 grains to a gramme—which is 1-28 of an oz. a little over 2-3 of a dwt.

Both of these are by the mode of sowing broadcast. The difference between these two quantities is so great that there must be an error in the computation of one of them. There are three methods of sowing the seed, viz: broadcast, in nursery beds, and in drills.

The mode of sowing broadcast is most known and most generally practised. It is the same used for sowing grain. The soil having been suitably prepared, and smoothed by the roller, a laborer bearing before him an apron full of seeds marches in the way of the length of the piece to be sown, throwing the seed before him by pinches, so as to make it as uniform as possible. It may easily be conceived how imperfect this mode is, and also it is that which requires the greatest quantity of seeds.

The seed thus thrown is scattered at very unequal distances, which makes it necessary to pluck them up where they are too close, and to replant them in those places where they are very scattered. This is called thinning and transplanting. These operations are done simultaneously, about a month and a half after the seed has come up. The laborers, who are commonly women and children, employed in this labor, pluck up with one hand the superfluous plants; the other hand holds a planting stick with which they make a hole where there is a vacant space, in which they insert one of the plants they have pulled up. Care must be taken in pulling them up not to break the roots. We must always take care not to crowd them in replanting. The distance we preserve between the plants varies according to the size which we wish them to attain, and, of consequence according to the richness of the ground. They are generally placed from fifteen to eighteen inches apart.

The operation of transplanting has the inconvenience of retarding the vegetation of the root, which has never the same vigor as those that have not been removed. M. Mathieu de Dombasle does not think, however, that the beets when replanted are less rich in sugar than those which have not been removed; and after comparative experiments made with much attention he has adopted almost exclusively the plan of transplanting.

The method of sowing in nurseries consists in sowing all the seed at first on one seventh or one tenth part of the ground which they are afterward to occupy. This ground must have been well ploughed and manured. About one month and a half after the beets have come up, they are to be taken up and transplanted in the field destined to receive them. For this purpose, a man having a planting-stick pierces holes with it, in each of which the women deposit a plant, closing them again with their feet. Before transplanting them it is necessary to cut off the leaves about three inches from the neck. Plants that have not been so treated die much oftener than the others by the effect of drought.

The inconveniences of this method are to increase very much the labor, it being unavoidable, at the moment when the plant is putting forth its greatest force of vegetation, to break the greater part of the ends of roots, which prevents their elongating to a point, and makes them forked: they afterward grow out in radicles, which increase the difficulties of clearing.

For the two preceding methods of sowing we have substituted, in almost all the large plantations, that of sowing in drills, which is done by tracing with a harrow the teeth of which are at suitable distances, drills of an inch nearly in depth, in which women, who follow the harrow, deposit the seed at intervals of sixteen inches. We then pass over the whole surface of the field a harrow upside down, to smooth the ground and cover the seed. In less extended plantings this mode of sowing is improved by using a seed-bag, or sower.

This instrument, which is made in different forms more or less complicated, is composed of a sort of box, in form of a hopper, in which is put the seed that is to be sown: the bottom of the box is formed of a wooden cylinder, the surface of which has cavities in which the seeds lodge. The whole is moved on two wheels.—In moving this machine, the motion of the wheels is communicated, by means of a feeder, to the cylinder, which in its rotary motion carries the seed from the box into the cavities, and sheds them uniformly in furrows traced by shares placed before the machine. We may readily conceive that the distances in which the seed will fall into the ground will be regulated by that which they had in the cavities of the cylinder.

In England, they have adopted, says M. Chaptal, a process which must have great success.—They open a deep furrow, and put the manure in the bottom: they then trace a second, which covers the first. The seeds are sown in the length of the furrows, so that they will be always placed perpendicularly to the manure, which retains its freshness, and furnishes its nourishment to the seed.

It is also necessary, when sown in drills, to thin the plants in parts where they are too near, and to replant them, on the other hand, in the vacant spaces. For the rest, this labor is performed with great facility by reason of the regularity of the lines.

THE HUSBANDMAN.

There is one prevailing error among this class of society which ought to be eradicated and destroyed—it is more fatal to the business of agriculture than the growth of Canada thistles, or the destruction of May frosts—we mean the neglected education of the farmer's children. It is frequently remarked that education is of little use to the farmer; a very little science will do for him. Great knowledge is only beneficial in the professional man. Expressions of this sort are founded upon a false estimate of one of the most useful and elevated professions of life.

If the habitual business of the cultivator does not afford the mental powers a field for their most extended exercise, we know not where to look for such a field. The study of agriculture unites to the theory of science the very essential material of its practical parts. It makes the study experimentally and truly learned.

Nearly every thing that is useful in our pilgrimage through life is drawn from the earth.—The main use of science is to explore the minutiae of nature, to fathom its secret caverns, and to bring forth the hidden possessions of the earth into comprehensible identity. Where then is the occupation that so richly furnishes a perpet-

ual supply of mental food as that of agriculture. In the constant exercises and every day labor of the farmer the business of his science is progressing, if his intellect has been set right in the education of his youth. The theory is all essential, for this constitutes the implement by which he is to prosecute the study of human nature to its practical utility.

A man cannot go forth upon the land with any good degree of promise in scientific experiment, without the light of past experience upon his pathway, and this he can only obtain by a passage through the literary institutions of the country, where the results of the labors of the learned for ages are collected together and made accessible to the student. To attempt a prosecution of the sciences independent of the past experience, as we sometimes incline to consider ourselves, would be vain. There is scarcely a valuable discovery of modern times but has borrowed something of its proportions or utility from the mind of antiquity.

That the farmer by a scientific cultivation of his land, can increase to a very great extent its productions, there does not exist a rational doubt. And that the time is coming when there will be actual necessity for this increase of production, there is every appearance. It is therefore not only wise and expedient to commence or carry on now, but it is a high duty which is owed to posterity, in consideration of all the blessings which past ages have bequeathed us.

Permit us, therefore, in our humble way, to impress upon the minds of the farmers the very great usefulness of education. Give your sons and daughters not the less education because you design them for rural life and agricultural pursuit: If you are able, educate them—they will find abundant employment for all their science though their farms be located in the deep wilderness of the west; though they be cast amid barren rocks and sterile sand plains, science will aid them there.

Not a blade of grass nor spear of grain but will grow better under the cultivation of intellectual care. Not a flower but will show beauties to the eye of science, which the vulgar world knows not of. Not a vine but rears finer and produces more where educated hands superintend its growth. In short, all nature is beautified, improved and bettered, where the cultivator is no stranger to its properties and the science of its developments.

Farmers give your children education. It is the only earthly inheritance you can bequeath them that is beyond the reach of accident. All other human property is constantly changing and transitory. Science is not transferable—not like the mutability of other goods, negotiable; firm and unshaken by human vicissitude. It will be the enduring companion of your children through life—it will support them in all the afflictions of Providential chastisement, and prepare them for an inheritance in that undiscovered country beyond the land of death.—*Troy Whig.*

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel.	98	1 00
White,.....	"	95	98
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	10 75
" wagon price,.....	"	10 25	—
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhd's.	hhd.	—	21 00
do. in bbl's,.....	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 00	3 75
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	62	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrapper, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 30
Red, best,.....	"	2 20	2 25
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbl's,....	gallon.	42	42 1/2
" in hhd's,....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,.	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
Wool, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	28 30
Three fourths Merino,.....	"	42 45	26 28
One half do,.....	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,.....	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	2 12
CHOP RYE,.....	"	—	2 25
Eggs,.....	dozen.	18	25
Fish, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ——— No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,....	do	Farmers Bank of Virginia 1
Other Branches,.....	do	Bank of Virginia,..... 2a1
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,....	par	Petersburg,..... do
Hagerstown,.....	3a	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... do
Farmers' Bank of Mary'd, do		Danville,..... do
Do. payable at Easton,....	3	Bank of the Valley,.... 1
Salisbury,.... 5 per ct. dis.		Branch at Romney,.... 1
Cumberland,.....	1	Do. Charlestown,.... do
Millington,.....	do	Do. Leesburg,.... 1
DISTRICT.		Wheeling Banks,.... 2 1/2a3
Washington,.....		Ohio Banks, generally 3a3 1/2
Georgetown,.....	Banks, 3.	New Jersey Banks gen. 1 1/2a2
Alexandria,.....		New York City,.... 1a
PENNSYLVANIA.		New York State,.... 2 1/2a3
Philadelphia,.....	1a	Massachusetts,.... 2a2 1/2
Chambersburg,.....	1	Connecticut,.... 2a2 1/2
Gettysburg,.....	do	New Hampshire,.... 2a2 1/2
Pittsburg,.....	2a2 1/2	Maine,..... 2a2 1/2
York,.....	1a	Rhode Island,.... 2a2 1/2
Other Pennsylvania Bks. 1 1/2a2		North Carolina,.... 3 1/2a4
Delaware [under \$5]....	3a4	South Carolina,.... 3 1/2a4
Do. [over 5]....	2a 1/2	Georgia,..... 3 1/2a4
Michigan Banks,.....	6a	New Orleans,..... 6
Canadian do.....	6a	

CHINESE MULBERRIES, &c.

THE Subscribers have still on hand the following:— 30,000 Morus Multicaulis, the wood of which is fully matured, there having been no premature frosts on Long Island the past season. Also 50,000 cuttings can be supplied.

20,000 Ingrafted trees of the new Chinese Mulberry, with large thick leaves, remarkable for the quantity of nutritious matter, this species being sufficiently hardy for the most northern latitudes, and possessing all the advantages of the Morus Multicaulis—these are from 3 to 6 feet in height.

3,000 Hybrid Morus Multicaulis, with large leaves, and close joints, and 5 to 6 feet in height.

35,000 Florence Mulberry with entire leaves, in which point they differ from the common White Mulberry; these are imported direct from the best silk district of France, 1 1/2 to 2 1/2 feet in height, and will be sold at very low rates.

60 lbs. White Italian Mulberry Seed.

WILLIAM PRINCE & SONS.
Linnæan Garden, Flushing, January 27th, 1837.
feb 7 3t

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

CYLINDRICAL STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's improved Cylindrical Straw Cutters, of various sizes, adapted to horse or manual power.

The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, have rendered them the most perfect and effective Straw Cutter in this country; they are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realize a profit by feeding to his cattle his corn fodder, which would otherwise in a great measure be lost. These machines are self feeders, the knives of spiral form, and act on a steel bed, in such a manner as to cut with great ease and despatch. The sizes are as follow, viz.

11 INCH BOX, suited to manual power, and capable of cutting 600 bushels of straw per day, being quite sufficient for the usual wants of farmers, price \$30 00

Extra knives for do. per sett, 4 00

14 INCH BOX, suited to manual or horse power: this size will cut 1000 bushels of straw per day, price 45 00

Extra knives for do. per sett, 5 00

20 INCH BOX, suited to horse or steam power, capable of cutting 125 bushels of straw per hour, price 75 00

Extra knives per sett, 8 00

The above named machines are all made with endless leather, movable bottoms; boxes with stationary bottoms are only made to order, being inferior, and a very trifling less in cost.

ALSO FOR SALE,

CORN SHELLERS, with vertical cast iron wheels, will shell 25 or 30 bushels per hour, price 20 00

Ditto Do. a powerful machine, adapted to horse power, and capable of shelling 80 a 100 bushels per hour, price 40 00

1800 PLOUGHS, of various patterns and sizes, including those in general use and most approved, price, 4 50 a 20 00

WHEAT FANS, common Dutch and patent, price \$20 a 25 a 35 00

CULTIVATORS, for Corn and Tobacco, 5 a 6 50

COTTON GINS made to order from patterns, most approved by the southern planters, price \$50 a 150 each.

75 Tons Plough and Machine Castings.

AND IN SHORT,

Every other implement appertaining to the wants of the farmer.

ROBERT SINCLAIR, jr. & CO.

ja 24 Light near Pratt street whf.

FRENCH SUGAR BEET SEED.

THE subscribers have for sale 200 lbs. of white and yellow French Sugar Beet Seed.—This lot of seed was raised last season from French Seed of the finest quality and can be recommended as fresh and pure. Also directions on the cultivation of Beet Sugar.

In store, an extensive assortment of Garden Seeds, European Field Seeds, a large collection of Flower Seeds, and will have early in the spring a superb collection of DOUBLE DAHLIA FLOWER ROOTS, consisting of about 200 superb varieties.

ROBERT SINCLAIR, Jr., & Co.

Jan. 10, 1837. 2t. A. P. C.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oc4

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 42.

BALTIMORE, MD. FEBRUARY 14, 1837.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER.

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, FEB. 14, 1837.

The immense importance of the Beet culture may be very readily imagined from the fact, that 80,000,000 lbs. of sugar were manufactured from beets in France during the year 1835, which at 10 cents per lb. is equal to \$8,000,000. The benefits conferred upon the people of that country by this single article of agricultural product, are, indeed, of the first importance, in the degree of comfort and prosperity which it dispensed to the industrious and enterprising. We have introduced this fact at the present moment with a view of making a remark or two which appear to us to be called for by the occasion. Those who have visited France, and who enjoyed every facility for forming correct judgments, have stated, and we believe with truth, that both the soil and climate of the United States of America, are equally adapted to the culture of the beet as those of that country. Such being the fact, we would ask—Why should not American agriculturists adopt it as a branch of their systems of husbandry? It promises the best rewards for their industry and enterprise, and would contribute largely towards their individual wealth. For ourself we can see no possible objection to their entering into the business at once: and should they be unwilling at the onset to go extensively into it, each one might upon a small scale make such an experiment as would test its practicability as well as profitability. By essaying first to manufacture a sufficient quantity for the domestic consumption of his family, each farmer or planter would derive an experience, at a trifling cost, that would prove ultimately invaluable; for he would thus acquire a practical knowledge of the process that would enable him at his pleasure to increase the business, to such extent as might be dictated by his interest.

But while we are upon this subject, we will ob-

serve, that as it may not suit but few agriculturists, except those owning large estates, to become, manufacturers of sugar, the true policy would be for every considerable city and town to form corporate companies with the object of buying the beets from those who may raise them, and manufacture them into Sugar. Such arrangements would furnish markets for this article, and thereby stimulate those engaged in agriculture to enter spiritedly into the beet culture, while the profits arising from its conversion into sugar would afford a handsome remuneration for the capital employed.

Mr. Pedder assumes as the average crop of an acre of ground, 23,000 pounds, and he gives the following as the result of extraction:

Sugar, 1st and 2d quality,	2,400 lbs.
Molasses, 2 per cent.	800
Cakes, 15 per cent.	6,000
	9,200 lbs. pr. ac.

The residuum after the sugar and molasses are expressed makes an invaluable food for stock, or may be converted into pot-ash, and would in either case more than pay for all expenses attendant upon manufacturing. Indeed, Mr. Isnard affirms that while prosecuting the business in France, he sold his cake for feeding cows, higher per cwt. than the price of beets, it being considered more nutritious than the entire root, the aqueous particles being in a great measure separated from the mass in the process of preparation.

THE CULTIVATION OF SILK.

The cultivation of silk in this country, is becoming an object of great and just importance, and will ere long be one of the most prolific sources of profit to the agriculturist. In New-Jersey it is progressing with such rapid strides, that a quantity of silk will be made the present season, and we are pleased to perceive that our brother of the "Bridgeton Whig" has now 700 trees of three years growth, which are estimated to feed 150,000,000 of worms.—*German town Telegraph, 8th Feb.*

From the number of trees of the various kinds of Mulberry planted in our country, it might well be said that we were making "rapid strides" in the culture of silk, if 700 trees, of 3 years growth, would feed one hundred and fifty

millions of worms. There is an evident error in the above statement, and lest some persons may be deceived, we shall take upon ourself the office of correcting it.

From the best lights we have been able to get upon the subject—and we have made it our business to inform ourself—20,000 worms will consume during the feeding season, 1000 lbs. of leaves. A full grown Mulberry tree, (say at 20 years old,) it is estimated will sustain 5,000 worms during that period. If then the trees of the editor of the *Bridgeton Whig*, were of that kind, they would feed but 3,500,000 worms; but as they are but 3 years old we incline to the opinion that they will not feed more than one-twelfth of that number.

No one thinks higher than we do of the lucrativeness of the Mulberry and Silk culture; but we are averse to giving credence to any statement so far above reality as this. Now 700 trees, at 25 feet apart, might be put on a fraction over 10 acres of land, and if they were competent to feed 150,000,000 worms, as 3,000, on a fair average, will yield a pound of silk, the whole number would give us 50,000 lbs.; which at \$5 per pound, would make the gross sum of \$250,000, for a little over ten acres, or nearly \$2,500 per acre. The paragraph whence the above was taken, has doubtless been written in haste, and its inaccuracy escaped detection by the proof reader; but as there is no necessity for the aid of over sanguine calculations to advance the silk culture, we have deemed it our duty to point out the improbability of the statement alluded to, and we would feel obliged to those editors who may have incautiously noticed the Bridgeton article, to make the proper correction.

Foreign Wheat.—We learn from the American of Saturday last, that there has been imported into the port of Baltimore, since September last, three hundred and sixty-one thousand, six hundred and ten bushels of foreign wheat, including fourteen thousand bushels received coastwise.

In New York on Sunday the 5th inst. there arrived from Marseilles, 6000 bushels of wheat; from Bremen 160 lasts of do; and from Trieste 11,000 bushels of rye.

OBSERVATIONS

Relating to the Transplanting and Culture of Fruit Trees.

PEACHES—Peach trees grow and succeed pretty well, on almost any dry soil, but that which they appear to thrive the best in, is a rich sandy loam. Sandy land matures the fruit much earlier than clay, and renders it of better flavor, and the trees live longer on rolling or wavy land than on such as are flat or low; a northern exposure is best, especially if protected from the rays of the sun by lofty woods on the south, whereby the bloom will be retarded, and consequently less exposed to late frosts.

Twenty feet is a good distance to plant the trees apart, and cultivate them as recommended for the apple; be particular to wash the trees as recommended for the apple and other trees, by which means the bark will be kept in a healthy sound state, preventing deep cracks, to which this tree is subject; into which cracks the insect deposits its eggs, as well as near the root. The time has been, that the peach was of very easy culture, but owing to the worm and other diseases, of later years it has become much more difficult, and hence the necessity of more skill, and regular attention;—and being one of the most delicious fruits, originally from the Persian empire, they will richly pay for the extra care, at four dollars per bushel, the Baltimore price for best sorts and well raised fruit.

To raise a good peach orchard and preserve it from the worm: procure trees one year old from the bud, older trees are more affected by the worm, and are much more checked in their growth, by transplanting, than when removed young. I do not mention this to promote the sale of young trees, but it is my candid opinion, and it is the custom of the Jersey farmers who supply Philadelphia with peaches; and it is best to get trees that have been budded on seedlings, the seed of which had been procured from thrifty trees, which had never been budded, and of course native or hog peaches—and before planting those trees, carefully examine the roots for the worm, which will mostly at this age be small, and may be found a little under the bark, a few inches below where the top of the ground was, and if taken out now the tree is up, the worm may be kept up as follows, supposing the trees to have been planted as directed for the apple:

About the middle of May, take the earth away from the trees about two inches deep, and wrap the trees one inch thick and three feet up the bodies with rye straw, placing the lower ends in said trench, and haul up the dirt on the lower end of the straw, which will keep the miller from laying its eggs on the tender bark of the tree during the time of its flight; after the first of October, the straw ought to be removed to harden the wood before winter, and place around each tree about one shovel-full of ashes; this should be done every fall, and increase them in proportion to the rise of the trees, and repeat the bandages of straw annually, as above, until the bark of the trees become old and so hard as to render it impervious to the worm. In order to obtain large fair fruit, they require judicious trimming—the first season after planting, as soon as the buds have fairly broke or pushed out, head the trees

down to about three to four feet high, taking care to do it above the bud; and after the branches have shot out, select three of the best of them near the top, and rub all the rest off—these three will mostly make strong shoots the first season, and the next season shorten these branches about one-fourth of their length, and rub off all the buds but three on each near the end, as in the first case; this will give the tree nine branches, which will mostly give a handsome head to each tree, and annually thereafter cut out about two-thirds of the fruit bearing species, leaving the strongest and best about equally distributed, and the leading shoots must be occasionally shortened as they become slender or weak, which strengthens the bearing wood, and the thinning out the spurs will lessen the necessity of thinning the fruit in some measure. Yet to have first rate fruit they ought to be thinned to four inches, leaving only one peach in that space, which ought to be done before the fruit is as large as the seed or stone of it; in this way we can have the same weight of fruit as if all was left on, and of course very large, and proportionally juicy and luscious.

CHERRY TREES—Cherry trees grow best on a rich well cultivated loam, on an open clay sub-soil, low, alluvial, sandy or wet land, is unfavorable.

The assortment of this fruit are much improved within a few years in this country; by another season I shall have some very superior new sorts—having seen the fruit of some of them, enables me to speak with confidence.

ROBT. SINCLAIR.

We have pleasure in expressing our entire concurrence in the tribute of praise contained in the following notice, which we copy from the *N. York American*.—*Nat. Intell.*

NILES' WEEKLY REGISTER.—It may seem somewhat like supererogation to say aught at this time of day in praise of a periodical so well known as the *Weekly Register*; but having at the moment experienced its value, we may as well acknowledge it. The last number happening to be before us, when we were desirous of looking back at two or three public documents, to find which in the file of a daily paper would have required both time and research—we turned to it, and there lighted on them ready to our hand: they were the Report of the Committee of Ways and Means of the House of Representatives, and Mr. Webster's Protest in the Senate.

The same number also contains the letter of Santa Anna to the President, Mr. Gallatin's letter to Mr. Madison on the repeal of the restraining law, the preamble, &c. of the Expunging resolution, a greater part of the debate in the Senate on the admission of Michigan, besides current news, incidents, &c. The Register is now conducted by a son of the original editor and proprietor, with undiminished care and intelligence; its form is changed from 8vo. to 4to. and of course its capacity for matter is enlarged in proportion.

A little sweet oil with nutmeg grated over it, given twice a day to children with the whooping cough, is said to be a sovereign remedy if administered in the first stages of the complaint. It can do no harm and possibly good.

BEET CULTURE.

Extracts from De Fontenelle's Manual.

[Continued.]

Hoeing.

The cares which the beet requires during its vegetation are very numerous. There come up at the same time with it a host of weeds, which impedes its growth, and in the end will choke it, if they are not carefully rooted out. That is the end we propose in hoeing. In the cultivation of beets, the hoeing must be repeated three times: the first is to be done at the time of transplanting; the second and the third at about one month's interval. When the beets have been sown broadcast, the weeds are to be rooted out with the hand, or with a pick. A man roots out with a pick all the weeds, which are then carried away and laid in a heap, to be converted into manure.

The sowing in drills gives the facility of doing the first and even the second hoeing with the horse-hoe, which is the most expeditious.—It is true the workmen must afterward pass over it, to till about the roots, and to pull up the weeds which the machine has left.

Besides the advantage that hoeing gives in clearing the ground of weeds that impede the vegetation of the beets, it has that also of turning up the earth, and giving light upon it. Thus we see, after each hoeing, the plant assumes a new vigor. The product of a field that has been well hoed is at least double that where the hoeings have been neglected.

Some cultivators have proposed to hill the beet. This method is more hurtful than useful. The roots do better when their upper part enjoys the direct action of the air, and of the rays of the sun. Thus, in Germany they often plant them mixed with a species of potatoes which it is necessary to hill; the earth taken from the beets is put about the roots of the potatoes.

We must guard against plucking the leaves of the beets designed for the manufacture of sugar, during their vegetation. It is an error to suppose that by plucking the leaves of which it has been deprived, except to the injury of the substances which serve to increase its volume, and among these substances is the sugary matter, which is most developed.

Harvesting.

As the beet approaches maturity, its leaves, which have been up to this time hard, erect, and of a handsome green tint, become marked with reddish spots, flag down upon the ground, and grow yellow. These marks, which appear toward the month of October, announce that the beets have come to their full growth, and that they have nothing more to attain. We must then proceed to pluck them. We must choose fine weather, after some days' without rain, for it has been observed that the quantity of sugar which the beets furnish, varies much with atmospheric circumstances. Thus the sugar from the beets, plucked after some days of rain, is always more watery than that from beets gathered in a dry time. The beet must not, however, be suffered to remain long after its maturity; for from this time the saccharine element, by a new elaboration of the juices, goes on daily diminishing,

and finally disappears altogether. M. Chaptal relates an instance of this, too remarkable not to be mentioned here.

M. Darracq, in concert with M. Lecomte d'Angosse, prefect of the department of Landes, had every thing prepared to establish a sugar factory. From the month of July to the end of August, he made experiments with the beets in all the eight ways, and constantly extracted two and a half to four percent. of good sugar from them. Assured by these results, he discontinued his experiments, to give himself up to the cares which his establishment required. What was his surprise, when, toward the end of October, the beets would furnish him nothing but sirup and saltpetre, and not one atom of crystalizable sugar.

Another inconvenience presents itself: if they are gathered before maturity, they wither, become soft—the extraction of the juice is a more difficult operation, and the sugar has less consistence. However, if the sugar is extracted immediately after they are taken from the ground, it appears that it may be done a little before their maturity without any bad result. So, at least, M. Mathieu de Dombasle assures us, who says, that he had extracted as much sugar, and even as it appeared to him, more, from beets of the same ground plucked in June, than from those gathered in the month of October. It is commonly women and children who do the business of gathering them. For this purpose they are divided into couples of two women, or of one woman and one child. The first with a spade takes up the beet, and leaves it on the soil: the child who accompanies her takes a root in each hand, and shakes them, beating one against the other, to detach the earth that is adhering to them; after which he ranges them one by the side of another in a line, the necks on one side. A laborer with a sharp spade passes over the lines, cutting off the necks. This is done by striking down the spade vertically, as if to fix it in the ground. This operation requires in the laborer who is charged with it a certain degree of adroitness, to cut off the neck without injuring the body of the beet. The principal object in cutting off the necks of the beet is to arrest the vegetation, which, without this operation, will continue many days to the injury of the sugary matter.

When the weather is favorable, the beets, after being pulled up and beheaded, are left some days spread on the ground, in order that the air may take from them a part of the water they contain. When it is supposed this drying is effected, they are put in heaps, and carried on carts to the magazines where they are to be kept.

We have already said that the leaves and the necks should remain on the ground, and that they may be considered a good demi-dressing for the harvest of the following year, which is commonly grain. Sometimes they fodder on the spot with these leaves, which are very abundant, the oxen, cows, sheep and pigs.

It is computed that sixty workmen, women and children, may pluck up, behead and put in heaps, the roots from a hectare and a half of ground in a day.

Preservation of the Beets.

The manufacture of the sugar of beets being prolonged through part of the winter, one of the most important cares is to provide for the keeping of this root, and preserving it from the different influences which might alter its composition and diminish the sugary matter, that it contains at the moment of harvesting.

These causes of alteration may be reduced, first to the influence exerted on all organized matter by a secret power, according to which they perform all their functions, the action of which continues even after the vegetable has been separated from the soil, and to which the name *vital power* has been given. Second, to temperature and humidity.

All plants retain then, as we have said, a remainder of life which continues longer or shorter, and with more or less force to elaborate the elements of which they are composed. Different circumstances may suspend, destroy or favor this action. A temperature below zero has the first effect, and in that circumstance beets may be preserved almost indefinitely. When subjected in this state to the operation of extracting the sugar, it furnishes a quantity equal to what it would have given before being frozen, only the work of rasping becomes more laborious. But it is altogether different if the operation is attempted in time of a thaw. The beets are then soft, wrinkled, and go on rapidly in the process of putrefaction. The mean time for the congelation of beets seems to be between the third and fourth degree below zero by the thermometer of Reaumur. But this degree may vary according to the quantity of water they contain; the least watery being sometimes able to support from one to two degrees below that above indicated.

A temperature a little raised destroys the vital power of the beet; but in a root completely dried, the proportion of crystalizable sugar that may be extracted will be considerably diminished, either by a change which may be caused by a too rapid drying or by the difficulty of working it.

However, Mr. Nosarzewski advises to preserve the beets by drying, and afterward extract the sugar by the aid of water or alcohol. His opinion is not founded on any positive experiment. Admitting, however, that it was based on facts, this method will be too expensive to be adopted in the manufactories.

The action of the vital power is singularly favored by a mean temperature of twelve or fifteen degrees; especially if accompanied with moisture. It is always at the expense of the saccharine element that this action is effected.—Beets placed in such circumstances are changed very quickly. A fermentation takes place, at first acid, but which before long becomes putrid.—Their interior then presents a number of cells, very apparent, filled with a viscons, stringy liquid. Their pulp is black, soft, and their surface is covered with mould.

Now in beets collected in a large quantity without the air having a chance of being renewed, the vital power is sufficient to develop a heat capable of producing these different effects. It has even often happened that fermentation progresses with so much violence, that it is exhaled from the mass in abundant vapors. M. Dubrun-

faut relates, on the testimony of several manufacturers, that beets which at one time would not give any sugar, being left to themselves for some time, have afterward furnished some very fine.—The writer above mentioned, although finding it was very singular, did not seem to think it impossible—and we are of his opinion. He supposed, in order to explain it, that there was an elaboration of the juices of the plant, which at the first time had not taken place, and which was afterward effected.

The means at first used to preserve beets, that which naturally presented itself, was to put them in heaps in the yard of the factory or in the neighboring enclosures, or sometimes even on the field where they had been gathered. These heaps were made in the form of an oblong square of ten or twelve feet high. The top, disposed to a sharp ridge, was covered with straw to shed the rain. This mode of keeping, otherwise very economical, had the inconvenience of not protecting the beets from frost, from which it is especially necessary to guard them—nor from the varieties of temperature, the effect of which as has been above mentioned, is always very hurtful.

In many establishments they have attempted to preserve the beets by burying them. For this purpose they dig in the field, or in a ground near the factory, ditches three or four feet deep, and of various breadth. The roots are thrown at random in these ditches, the middle is raised to a sharp ridge, and the whole is covered with a bed of earth, a foot thick, at least.

In cases where the earth is very moist, M. Dubrunfaut advises not to make the ditches designed to receive the beets more than twelve or fifteen inches deep; to make two similar parallel ditches, and to dig between them a deep trench of two or three feet, for the rains to flow in. The earth taken from this trench will serve to cover the heaps of beets, which will then be raised about two feet above the soil. This is the method in use in Germany to preserve potatoes. M. Mathieu de Dombasle has practised it with advantage for preserving the beet. M. Chaptal recommends to line the bottom and sides with straw. It is now well established that this is more hurtful than useful. For the straw decays, and draws after it the decay of the roots.

In this mode of preservation, which otherwise offers great advantages, the chief difficulty against which we have to guard is to prevent the action of moisture of the beets.

Of all methods of preserving beets, the best undoubtedly, because it is calculated to guard them from extrinsic dangers, is to store them in cellars, or, better still, in magazines. The beets are piled in heaps of twelve to fifteen feet or more. By making them higher, the lower tiers which support the weight of the whole mass will be infallibly crushed. A passage must be left through the length of the store-room, in order to be able to examine them from time to time, and to remove from the heap any portions in which any decay appears.

To prevent the heating which may result from the heaping up of the beets, it is necessary to change often the air of the store-room. For this we must take advantage of a day when the wea-

ther is dry and fine. The preservation of the beets in a store unites all the advantages that are desired. It has only the disadvantage of being expensive by the necessary size of the building.

The medium weight of a cubic metre of beets is about 800 kilograms. It will be easy from this given quantity to calculate the dimensions of a store designed to receive any certain quantity of beets.

We will add that it will be for the advantage of manufacturers to work, through the season, as many beets as they can. For Hermbstaedt has ascertained that they generally give more and better sugar at the beginning of the season than at the close. This is also the opinion of Wagennann.

Mode of determining the Saccharine Richness of Beets.

The process proposed by M. Pelouze for estimating the quantity of sugar contained in the different species of beets, consists in making them ferment in a place sheltered from the air, and then distilling the spirituous liquor that results from it. By the quantity of alcohol produced he estimates the proportion of sugar which was in the roots.

He first ascertained that thirty-five grammes of pure sugar perfectly dry dissolved in 445 grammes of water, to which had been added a little yeast or beer well watered, had given by distillation a spirituous liquor representing 20.5 of pure alcohol.

Starting from these premises, M. Pelouze extracted the juice of 500 grammes of beets, the pulp reduced very fine; and in order to extract all the sugary part exhausted it by repeated washings and compressions. This liquor mixed with a small quantity of pure yeast, is left to itself, in a temperature of about 188 or 208, and at the end of about 15 days the action is finished. He distilled then the fermented liquid, and ascertained its degree by the hydrometer of M. Gay Lussac.

To know the quantity of sugar in the 500 grammes of beets he had only to compare the quantity of alcohol obtained, with that furnished by the pure sugar.

Repeated experiments proved to M. Pelouze that generally beets contained a proportion of sugar double that which was separated by the processes used in the manufactories, that is to say, about 10 per cent.

According to this author, beets the most rich in sugar are those having a rose-colored skin and white pulp. The small are always more sugary than the large; which was known before the experiments of M. Pelouze.

The process of M. Pelouze is certainly accurate for the estimation of the quantity of sugar, and to clear up a mass of questions of great interest concerning the culture of the beet. But will it be practicable on all occasions? We think that an experiment that demands from twelve to fifteen days to be tried, and which requires some care to be done well, is not susceptible of being put in practice in all the factories where beets are worked to obtain sugar.

A correspondent in Professor Silliman's Journal states that Gypsum (sulphate of lime) is found in large quantities on the Muskingum, Ohio, of such beautiful crystalline structure and whiteness that it might be used for alabaster ornaments.

ON POTATOES.

The potatoe will grow upon almost any kind of soil, provided it be not too wet and clayey—but light, dry, and friable loams, or sands of tolerable consistence, are the most appropriate. Reclaimed bogs and pent land, when well drained, produce large crops; and some of the finest qualities are grown on alluvial soils, and in the warped land in the neighborhood of the Humber. Grubbed wood-land is also favorable to its growth, and the planting of potatoes will probably be found the most profitable mode of bringing it into immediate cultivation; indeed, as much as 500 bushels per acre have been thus obtained, but the land was manured with twenty wagon-loads of dung. A sward, or first ley, is, however, the most desirable; and it is for this purpose the common mode of breaking up grass land in Ireland, where it is frequently let to the peasantry at extravagant rents, in what are there termed "Con-acres," and yields crops of superior quality. The climate, indeed, is there more genial to the growth of esculents, than that of England, and the soil is generally so much richer, that in no other country has culture of the potatoe been carried to such perfection.

The produce of four eyes cut from the cluster species, and planted in four different kinds of soil was—

On a strong rich loam,	34 lbs.
— light rich loam,	29 lbs.
— a good gravel,	19 lbs.
— sandy soil,	15 lbs.

But, although some idea may be thus formed, of the produce, yet no definitive conclusion can be drawn from this experiment, regarding the crops to be obtained from the land, for other sorts might have been better adapted to the soils; they must be all heavily manured, and good sands are especially favorable to the growth of the larger roots.

CULTURE.

In Yorkshire, and other parts of the north, the ground is ploughed into one-bout ridges, and the "sets," or cuttings from the potatoes to be planted, are placed in heaps or baskets, and laid by women and children in the furrows; the manure is laid at the same time, and the ridge is covered with earth by the plough dividing it, and making a fresh one over the potatoes. As soon as the plants make their appearance above ground, the ridges are harrowed down, and are suffered to remain in that state about a week, when the weeds will begin to appear; the ridges are then earthed up, and in a week or two as much of the earth from the sides of them is ploughed down as can be done without leaving the roots too bare. After this the tops of the ridges are carefully hand-hoed, and the earth which was ploughed from the ridges is again turned to them: if afterwards weeds grow up, they are again hand-hoed, after which the earth is drawn up to the top of the ridges. The plants having by this time got to a considerable size, soon overcome all weeds, and consequently require no further attention till the time of taking up. It has, however, been justly observed, that "on all very dry sands, and in a dry climate, the land should be laid quite flat, and the plants should be hoed by hand, as the only means of preserving the ground sufficiently moist

to promote the growth of the crop; but in every situation where there is no danger of the land being too dry, and on all thin soils, one-bout ridges have the advantage over every other method."

Another mode—which it seems has been borrowed from America—is to plant the sets in banks. "The field is marked out in shallow drills, at about two feet and a half distance, by the double mould-board plough, and is then marked out transversely at the same distance; thus intersecting the surface at right angles, and the dung is laid at the time of planting. The holes for the reception of the sets are formed by a laborer at the intersection marked by the plough, in such a manner as to leave them flat at the bottom, about ten or twelve inches in diameter, and three or four inches deep. This being done, the manure is divided into the holes as evenly as possible, taking care that the particles be well separated by women and children breaking it with their hands. Four cuts are then to be laid in each hole, within four inches of the edge, and about six or seven inches distance, and covered by levelling the soil into the holes with shovels, which finishes the work until the plants appear above ground; after which, only a small quantity of earth is thrown lightly on the banks just sufficient to refresh the surface, and if the land be foul with weeds, it should be hand-hoed before the banks are dressed. The last earthing should not be performed until the crop is in full blossom, when it must get another light dressing.

Mr. Burroughs, from whom we have extracted the above account, says, that "many who have heard of this culture, ut who have not practised it, imagine that its chief object is to afford a great quantity of earth being thrown up to the plants; but so far from this being the scientific principle of the system, that should the sets be deposited too deep, or the banks be landed too high, the crop would prove very unproductive." He adds also, from his own experience, that "the banks being left quite flat at the top when finished, the crop proved much more productive than the adjoining drills sown with an equal quantity of manure, and the potatoes were of better quality."

Regarding the mode of spreading the dung—whether above or under the sets—some difference of opinion prevails; for although the latter is the method usually adopted, and it may be rationally supposed, that, as the roots shoot rather laterally than upwards, it is from the manure placed underneath that they extract their nutriment, yet it is supposed by many persons that, if the land be light and dry, it answers better to lay the manure in furrows above the plants; and some farmers seem to think the manner of its application immaterial. According to an experiment made with the utmost degree of attention, under the direction of the Board of Agriculture, the former, however, appeared to have the advantage of five to four in its favor: the produce of an equal weight of sets, and quantity of manure, being—

When laid over the dung,	105 lbs. 4 oz.
" under the dung,	84 lbs. 3 oz.

Such are the ordinary modes of culture usually adopted throughout most parts of the United Kingdom; but a novel plan, which deviates in

some essential particulars from those generally employed, has lately been brought into notice by Mr. Knight, the very intelligent President of the Horticultural Society; and, as the very interesting account which has been published by the society may yet be unknown to many of our readers, we here transcribe it, and beg earnestly to call it to the serious attention of every farmer who is engaged in that branch of husbandry.

"The experiments were made upon different varieties of potatoes: but as the results were in all cases nearly the same, I think that I shall most readily cause the practice I recommend to be understood, by describing minutely the treatment of a single variety only, which I received from the Horticultural Society, under the name of 'Lankman's Potato;'" a tall sort raised some years since in Flanders.

"The soil in which I proposed to plant being very shallow, and lying upon a rock, I collected it with a plough into high ridges of four feet wide to give it an artificial depth. A deep furrow was then made along the centre and highest part of each ridge; and in the bottom of this, whole potatoes, the lightest of which did not weigh less than four ounces, were deposited, at only six inches distance from the centre of one to the centre of another. Manure, in the ordinary quantity was then introduced, and mould was added, sufficient to cover the potatoes rather more deeply than is generally done.

"The stems of potatoes, as of other plants, rise perpendicularly under the influence of their unerring guide, gravitation, so long as they continue to be concealed beneath the soil; but as soon as they rise above it, they are to a considerable extent, under the control of another agent, light. Each inclines in whatever direction it receives the greatest quantity of that fluid, and consequently each avoids, and appears to shun, the shade of every contiguous plant. The old tubers being large, and, under the mode of culture recommended, rather deeply buried in the ground, the young plants in the early part of the summer never suffer from want of moisture; and, being abundantly nourished, they soon extend themselves in every direction till they meet those of contiguous rows, which they do not overshadow on account of the width of the intervals.

"The stems being abundantly fed, owing to the size of the old tubers, rise from the ground with great length and luxuriance, support well their foliage, and a larger breadth of this I think, exposed to the light during the whole season, than under any other mode of culture which I have seen; and, as the plants acquire a very large size early in the summer, the tubers, of even very late varieties, arrive at a state of perfect maturity early in the autumn.

"Having found my crops of potatoes to be in the last three years, during which alone I have accurately adopted the mode of culture described above, much greater than they had ever previously been, as well as of excellent quality, I was led to ascertain the amount in weight which an acre of ground, such as I have described—the soil of which was naturally poor and shallow—would produce. A colony of rabbits had, however, in the last year done a good deal of damage, and pheasants had eaten many of the tubers which the

rabbits had exposed to view; but the remaining produce per acre exceeded 539 bushels, of 82 lbs. being allowed in every bushel on account of a very small quantity of earth which adhered to them.

"The preceding experiments were made with a large and productive variety of potato only; but I am inclined to think that I have raised, and shall raise the present year, nearly as large a produce per acre of a very well-known small early variety—the 'ash-leaved kidney potato.' Of this I selected in the present spring the largest tubers which I could cause to be produced in the last year; and I have planted them nearly in contact with each other in the rows, and with intervals, on account of the shortness of their stems, of only two feet between the rows. The plants at present display an unusual degree of strength and vigor of growth, arising from the very large size—for that variety—of the planted tubers; and as large a breadth of foliage is exposed to the light by the small, as could be exposed by a large variety; for I have always found the amount of the produce, under any given circumstance, to be regulated by the extent of foliage which was exposed to light; and I have uniformly found that to obtain crops of potatoes of great weight and excellence, the period of planting should never be later than the beginning of March."

The produce of this small early variety in fact, very considerably exceeded that of the large one first mentioned—being per acre 665 bushels of 82 pounds—and both so far exceeded the ordinary crops which had been previously raised except in very rare cases, that doubts were entertained of the exactness of Mr. Knight's conclusions, and experiments, it will be seen, were made in the garden of the society in order to obtain further evidence.

SEED.

It has been ascertained by repeated trials that every variety of the potato, when propagated during a series either from the root, or by the whole tubers, is subject to degenerate: in some, the quality remaining good, after the produce in quantity has become defective, whilst with others, it disappears with the vigor of the plant. In order to obviate this inconvenience, and to preserve those species which are known to be valuable, farmers occasionally raise them from the seed contained in the apples which grow upon the stalk; for which purpose, a few large ripe apples should be chosen from a healthy plant, and be carefully preserved apart, in some dry sand, during the winter.

The seed is then picked out, and usually sown in rich garden ground in the month of April; but it is more expedient to sow it in a hot-bed early in March, to expose the shoots gradually to the open air, and to plant them in a bed of rich earth in the middle of May. In the month of October, the seedlings would produce tubers, the largest of which are to be gathered, and planted out, in the following spring, at a few inches distance from each other. When they rise about two inches above ground, they should be covered with two or three inches of mould, and managed in the same manner as if grown from the old potato.

When arriving at maturity, they should be continually and carefully examined, to discover those

which appear the earliest in coming to perfection; which will be denoted by the decay of the haulm. These should be taken up, and in like manner those of a later growth, but those which show extraordinary vigor should be selected, and the produce of each sort being again sown in the ensuing year, a correct judgment may be formed of the respective properties of each. The process is thus so slow and troublesome, that it takes three years to bring any new variety to maturity, and a fourth before the real properties of the root can be correctly ascertained. The product will also sometimes disappoint the expectations of the grower; for although, generally speaking, the major portion of the crop will be found of the same quantity as the original stock, yet it occasionally fails, and the new varieties are constantly produced, differing in both color, flavor, size, and the periods of ripening. Thus, it appears from an experiment lately made in the garden of the London Horticultural Society, upon twenty-five seedling varieties reared by Mr. Knight, that the estimated produce varied from 1 to upwards of 18 tons per acre; all of different qualities.—The best produced from a single tuber, twenty-seven large and seven small roots, the aggregate weight of which upon an acre of ground it was supposed would equal 17 tons 9 1-2 cwt., and being both large, solid, mealy, well-flavored, and in substance and appearance much resembling the white yam, has been named by the Society, after Mr. Knight's country seat, the "Downton Yam Potato."

SETS AND TUBERS.

We have already stated, that in the common course of field-husbandry, potatoes are invariably planted for a crop, either by depositing the entire root, or cuttings from it, called "sets." No objection appears indeed to have been commonly entertained against the planting of the whole root, or "tuber,"—except on the score of economy, though probably no other advantage will be thereby gained, for every tuber contains many heads, or "eyes,"—from each of which a shoot will spring, and by sowing these separately, or in cuttings containing two or more together, a saving is made in the quantity; but an extraordinary opinion is entertained regarding the best method of performing this operation.

Among numberless experiments which have been made with a view to compare the produce of plantations of different sizes of whole tubers, and sets from different sizes of cuttings, those of entire potatoes reported to the Bath Society were generally stated to be superior. Dr. Anderson found that the crop was in some measure proportionate to the weights of the sets; and that it was more profitable to plant small potatoes than small cuttings. Others, however, found that the difference in acreable produce, between large and small, cut or uncut potatoes for sets, was quite immaterial; but that the saving in the quantity sown, was so much in favor of the cuttings as to require only twenty bushels per acre. Yet, according to a report made to the Dublin Society of Agriculture, it was stated, on comparison with the sets cut from reasonably large and small tubers, that the produce in favor of the former was as 84 to 64; and another well informed gentleman states, "he has uniformly found in all his

experience, that large sets of potatoes made a more productive return than small ones. And upon trial, both in garden and field, he has repeatedly found that planting whole potatoes, even though large, very much increases the crop. In this way, however, they require to be planted thinner, as the stems, being stronger and more luxuriant, occupy more space."

To set this point at rest, five plots of ground of equal size, and as nearly as possible of equal quality, were also lately selected by the London Horticultural Society for the growth of five different varieties: one-half of which being planted with whole tubers, and the other with sets containing but one eye each; and, being placed equal distances—eighteen inches apart—the result was as follows:—

Species.	Weight when taken up.			
	Whole tubers.	Single eyes.		
	tons.cwt.lb.	tons.cwt.lb.		
Early many,	17 10 4	18 19 82		
Shaw's,	20 15 26	20 0 4		
Red-nosed kidney	18 7 71	17 12 49		
Pink-eyed scotch,	22 15 83	20 2 7		
Champion,	23 14 0	24 0 18		

The whole tubers appeared above ground; in each instance, three or four days earlier than the sets, and the haulm become somewhat longer—but the experiments show that, although the total amount thus estimated to have been obtained is—

	tons.cwt.lb.
From whole tubers,	113 2 17
— single eyes,	111 3 54

thus giving an apparent difference in five acres of about two tons, yet it was hardly more than the difference between the weight of the tubers and the sets originally planted.

Those and other trials, indeed, afford presumptive evidence that sets cut from full grown, healthy tubers, are as productive as the whole root; for although it is recorded as the opinion of the President of the Society, founded upon a variety of experiments carried on during a long series of years, "that the heaviest crops of potatoes, and those most profitable to the grower, will in most soils and seasons be obtained from tubers of considerable weight, and will be found less subject to decay in wet and cold springs; he, however, thinks it extremely probable that, when the soil is very dry, so as to preclude all grounds of fear of the cuttings decaying, more regular and better rows and plants might be obtained from single eyes placed at short distances, with a moderately large portion of matter of the tuber, than the whole tuber."

It may also be observed that the eyes or heads, which appear like spots upon the skin of the potato—are of different kinds; those at one end being more prolific than the other: yet, when planted in sets, some farmers cut off both ends, only making use of the part, in the middle, while others cut it longitudinally—from "nose to tail," and set both halves indiscriminately; and many scoop out the eyes and plant them singly. The stems which spring from that end of the potato into which the fibre which connected it with the mother plant, and from which the potato itself is grown, germinate but feebly and do not attain the same size as those which are found upon the

other end, which may be seen by looking at potatoes in the spring, when they begin to bud:—those which spring from the top end, having far greater vigor and luxuriances than those which spring from the root end.

It is indeed a point which deserves very serious attention; and as the other portions of the potato can always be used for other purposes, it should never be neglected. Instead, however, of sowing single eyes, we should rather recommend the use of the entire cluster of buds which will be found on the top end, or nose of the tuber.

Library of Useful Knowledge.

CHESTER CO. SILK COMPANY.

At an annual meeting of the stockholders of the Chester Co. (Pa) Silk Company, held on Saturday, the 21st inst. SAMSON BABB was appointed Chairman, and WM. P. TOWNSEND, Secretary.

The following Report of the situation and condition of the Company was laid before the meeting by the Directors:

REPORT.

The Directors of the Chester County Silk Company, in laying before the stockholders, their first annual report, take great pleasure in stating that it bids fair to become a pioneer in the promotion of a branch of industry, that ere long, will be a source of great national importance.—The proper spirit to promote the growth and manufacture of silk in our own country is awakened, and it is only necessary that the impulse it has received, should be continued for a short period, to give it an onward course, that will then require but little, if any extrinsic aid. At present, however, it needs the fostering care of individuals of enterprise and capital.

Notwithstanding the lateness of the season, when the board were enabled to begin operations, they have pressed forward with as much rapidity as the nature of the business, together with the amount of capital subscribed would allow. Late in the Spring, when five thousand five hundred dollars of capital were subscribed, a lot containing about twelve acres of land, on the north-eastern side of the Borough of West Chester, was purchased at a reasonable price. As soon as the season would allow, a portion of the ground was prepared, and eleven hundred and eighty-eight white mulberry trees of several years' growth, were planted, the most of which are growing, and will soon become valuable standard trees. There were also three hundred of the *morus multicaulis*, or Chinese mulberry trees, which flourished well, and produced a large amount of foliage. In addition to these, at about the same time, one pound of white mulberry seed, was sown in drills, from which it is probable, there will be several thousand trees for the use of the company. That a portion of the farm which was not ploughed, yielded by estimate from ten to twelve tons of hay, which is still unsold.

The whole lot, except that part bounded by the Rail Road, has been surrounded by a hedge of Virginia thorn, which has every appearance of becoming, at no very distant period, a valuable protection to the grounds. Late in the season, one thousand more of the Chinese mulber-

ry trees were obtained at a fair price, for the purpose of setting out at an early day in the ensuing Spring. It is believed, from the cuttings they will afford, together with those obtained from the trees of the same species planted last spring, there may be several thousand trees with good roots, by the close of the coming season.

Two instalments, one of five and the other of six dollars, upon each share of stock subscribed, have been called in, which have not been quite sufficient, after paying for the land, to liquidate the current expenses of the season. The expenses unpaid, together with others that must soon accrue, in prosecuting the concerns of the company, will make an accession to the funds necessary at an early day.

Upon leaves procured from a few white mulberry trees in the neighborhood, several thousand and silk worms were fed, chiefly for the purpose of obtaining practical information; and though the season was very unfavorable, the result was as satisfactory as could be looked for. A portion only of the silk obtained, has been reeled, and in consequence thereof, has not yet been manufactured as had been intended, before the annual meeting of the stockholders.

The board wish the attention of the stockholders and others drawn to the fact, that the law under which the company is incorporated, is as favorable as could be desired; there being no restrictions tending to trammel the concerns of the institution while operating within its legitimate sphere. Opportunity still exists for those that are willing to embark in the enterprise upon the same terms as original subscribers.

From numerous facts collected by the President of the company in a late tour through some of the eastern states principally with this view, and from other sources of information, the board have no hesitation in saying that the profits arising from the growth and manufacture of silk, under proper care, far exceed those ordinarily realized from agricultural pursuits, and that not only companies, but individuals may safely engage in the business. Two reasons present themselves why companies can operate more advantageously than individuals. First, from having a capital sufficient at the start to procure land, buildings, trees, machinery, &c. Second, by being able to concentrate in a large establishment the experience, talents, and service of operatives and others, acquainted with the various processes necessary in such establishments. The broader the scale upon which operations are commenced, if judiciously managed, the earlier will profits be realized. While we would recommend individuals on their own account to embark in the business, we are sufficiently aware that there is generally a great lack of the necessary knowledge on the subject of cultivating the mulberry, raising the silk worm and manufacturing the silk; and that it is through the medium of well organized companies, that correct and useful information is to be expected in the early periods of this important branch of industry.

It is the opinion of the board that the stock should be augmented as early as practicable, in order to enable the company to enter into the business upon a much broader scale than the

present amount of capital justifies, and that the books should be opened at an early day for new subscriptions.

The foregoing report having been read, it was on motion

Resolved, That the Report of the Directors of the past year, be accepted—ordered to be published; and that the thanks of the stockholders are respectfully tendered to the Board for the zeal and fidelity with which they have performed their trust. The meeting then proceeded to the election of seven directors to serve the ensuing year, when upon examining the ballots it appeared that

Dr. Isaac Thomas, Jonathan Valentine, Philip P. Sharpless, John Rutter, David Townsend, Charles Downing and Caleb Brinton were duly elected.

SAMSON BABB, *Chairman.*

WM. P. TOWNSEND, *Secretary.*
West Chester, Jan. 25, 1837.

[*Village Record.*]

GRAPES.

Mr. Harrison, of Newark, New Jersey, has discovered a method of preserving the common grapes of our vines, the Powell and Catawba grapes, for many months, with all the freshness of flavor, taste and appearance, that they had the moment they were taken from the vine. The experiment has been fairly tested; in the fall of 1835, Mr. Josiah Dow, of Brooklyn, Long Island, who has a most extensive vineyard, adopted Mr. Harrison's plan, and as a consequence, had the luxury of fresh grapes upon his table all winter, and last fall he repeated the trial, no longer an experiment, and finds the same happy result.

We have now before us a bunch of Catawba grapes, which Mr. Harrison preserved last September, and they taste as well as they would have tasted directly from the vine. There are immense quantities of grapes of the richest kinds raised in and near Philadelphia, as the exhibition last fall at the Franklin Institute fully testified; and the quantities would undoubtedly be greatly increased, if a mode of preserving the fruit for the winter was generally known. It seems to us that the discovery of Mr. Harrison will meet the wishes of the grape growers and grape eaters, and that hereafter we may expect to see native grapes placed on our dinner and supper tables, during the fall and winter months.

Mr. Harrison sells rights to prepare the grapes, a process requiring no labor, at \$5 for a family, or he will sell the rights of a city or district, and he may be addressed by letter, as follows:—Charles A. Harrison, Mulberry street, Newark, New Jersey.

But Mr. Harrison will undoubtedly visit Philadelphia next fall, in the grape season, when persons are more in the mood of discussing such matters, and when the rich clusters tempt the wish that the luscious fruit might be enjoyed the year round.—*U. S. Gazette.*

To the Editor of the Chronicle—

SIR—Under the present scarcity and high prices of horse-feed and provender of all kinds, I think it the duty of every farmer to render his aid in weathering the winter to the best advantage.

When grain was cheap and plenty, I usually gave my team of six horses three pecks of chopped rye, with a sufficient quantity of cut straw and a good rack of hay. If the chop was not ground fine and well wetted and mixed with the straw, they would often root it about in the trough until it became dry, shake off the chop to the bottom, eat it and throw the straw out of the trough. As "necessity is the mother of invention," I conceived a plan of preventing such a waste of feed: Instead of giving them three pecks of raw chop with the straw as usual, I now, (as rye is scarce and dear) in order to fill up and save my hay, boil six or seven gallons of water, pour it hot into a tub upon one heaping peck of chop, making a kind of thin rye paste, or loblolly, to 9 bushels of straw, and mix it up hot. It softens, sweetens, and sticks so tight to the straw that they cannot shake it off, and will eat it all as clean as they usually did when they had three pecks, and I think the experiment well worthy of a trial by all farmers, carters, draymen, &c. A FARMER.

Beet root Potash.—In addition to the sugar and alcohol produced from the Beet, they now, from the residuum, manufacture potash from the Beet, which has been used in the process of making sugar.—This discovery was made by M. Dubrunfaut, and threatens to rival the product of the American forests. Thus, supposing that 42,000 of pounds of sugar is made, from the residuum can be manufactured 6,000,000 lbs. of saline matter, comparable with the best potash of commerce.—*Buf. Pat.*

Interesting to Horses.—"A Friend to horses," in the Pittsburgh Gazette, cautions owners of horses against putting cold bridle bits into the mouth of the horse when the weather is much below the freezing point; by doing so the bit touches the tongue or lips; the skin will come off, as if burnt with a hot iron. Hence the sore tongue in horses so often complained of and suffered. This fact should be made known, and the practice of warming the bit observed in all northern latitudes, where the thermometer ranges between zero and the freezing temperature.

CLAIRMONT NURSERY,

3 Miles East of Baltimore.

ROBERT SINCLAIR, Senr.



Proprietor, hereby informs his friends and the public that he expects the weather will be suitable to commence filling orders about the middle of the present month.

And owing to the winter setting in so unusually early, it is believed prevented many persons from ordering who intended to have done so, and even many orders that did come, had to remain unfilled until the spring, consequently his stock remains good for most articles as advertised last fall—particularly Apple, Peach, Plum, Quince, English Raspberry, Strawberry, Gooseberry, Currant, Grape Vines, three years old, and Cuttings of the same, a few hundred Morus Multicaulis, and other Mulberry Trees, Ornamental shade Trees, many kinds, and several of them of large size, Balsam Fir, or Balm of Gilead, and other evergreens, and a superb collection of Garden and China Roses, and other beautiful Flowering Shrubs, Honey Suckles, Vines and Creepers, Rhubarb for tarts, &c. See printed and priced catalogues, to be had of the proprietor, gratis, or of R. S. jr. in Light street.

Also will be delivered to customers, strong thrifty potted Plants; about the middle of May, a splendid assort-

ment of double Dahlias, consisting of about one hundred varieties, carefully selected from among the best and latest importations. Printed catalogues will be furnished as above.

A few more pair white Turkeys, and 2 male Peacocks.
Feb 14

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms	\$30,	with extra pair of knives,	\$33
11 " Permanent Bottom 28,	do do do		31
13 " " " 43,	do do do		48
13 " Revolving Bottom 45,	do do do		50
15 " " " 50,	do do do		56
20 " Large size fitted for horse-power 80,	do do		90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox, & Borland's spring concave Threshing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Threshing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,

Balt., Dec. 13. Editor Farmer & Gardener.

CONTENTS OF THIS NUMBER.

Notice of the Beet culture—the cultivation of Silk—Foreign Wheat—Observations by R. Sinclair on transplanting and the culture of Fruit Trees—Notice of Niles' Register—remedy for whooping cough—on the Beet culture—Gypsum in Ohio—Essay on the Potato—Chester Co. Silk Company—preserving Grapes—to save horse feed—beet root potash—interesting caution relative to horses—prices current—advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel	93	1 00
White,.....	"	95	98
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR&MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 50	10 75
SuperHow. st. in good de'd	"	10 50	10 75
" wagon price,.....	"	10 25	—
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 00	3 75
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	—	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf, ..	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 30
Red, best,.....	"	2 20	2 25
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling, ..	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	28 30
Three fourths Merino,.....	"	42 45	26 28
One half do.....	"	38 42	26 28
Common & one fourth Meri.	"	35 33	26 28
Pulled,.....	"	38 40	26 28
Howard st. Flour, sales limited, receipts very light.			

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	2 12
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....par	VIRGINIA.	
Branch at Baltimore,.....do	Farmers Bank of Virginia	1
Other Branches,.....do	Bank of Virginia,.....	2a1
MARYLAND.	Branch at Fredericksburg do	
Banks in Baltimore,.....par	Petersburg,.....do	
Hagerstown,.....1a	Norfolk,.....do	
Frederick,.....do	Winchester,.....do	
Westminster,.....do	Lynchburg,.....do	
Farmers' Bank of Mary'd, do	Danville,.....do	
Do. payable at Easton,.... 2	Bank of the Valley,.... 1	
Salisbury,.... 5 per ct. dis.	Branch at Romney,.... 1	
Cumberland,.....1	Do. Charlestown,.... do	
Millington,.....do	Do. Leesburg,.... 1	
DISTRICT.	Wheeling Banks,.... 2a3 1/2	
Washington, } Banks, 1.	Ohio Banks, generally 3a3 1/2	
Georgetown, } Banks, 1.	New Jersey Banks gen. 1 1/2a2	
Alexandria, }	New York City,.... 1a	
PENNSYLVANIA.	New York State,.... 2 1/2a3	
Philadelphia,.... 1a	Massachusetts,.... 2a2 1/2	
Chambersburg,.....1	Connecticut,.... 2a2 1/2	
Gettysburg,.....do	New Hampshire,.... 2a2 1/2	
Pittsburg,.....2a2 1/2	Maine,.....2a2 1/2	
York,.....1a	Rhode Island,.... 2a2 1/2	
Other Pennsylvania Bks. 1 1/2a2	North Carolina,.... 3a4	
Delaware [under \$5].... 3a4	South Carolina,.... 3 1/2a4	
Do. [over \$5].... 2a3	Georgia,.....3 1/2a4	
Michigan Banks,.....6a	New Orleans,.....6	
Canadian do.....6a		

CHINESE MULBERRIES, &c.

THE Subscribers have still on hand the following:— 30,000 Morus Multicaulis, the wood of which is fully matured, there having been no premature frosts on Long Island the past season. Also 50,000 cuttings can be supplied.

20,000 Ingrafted trees of the new Chinese Mulberry, with large thick leaves, remarkable for the quantity of nutritious matter, this species being sufficiently hardy for the most northern latitudes, and possessing all the advantages of the Morus Multicaulis—these are from 3 to 6 feet in height.

3,000 Hybrid Morus Multicaulis, with large leaves, and close joints, and 5 to 6 feet in height. 35,000 Florence Mulberry with entire leaves, in which point they differ from the common White Mulberry; these are imported direct from the best silk district of France, 1 1/2 to 2 1/2 feet in height, and will be sold at very low rates.

60 lbs. White Italian Mulberry Seed.

WILLIAM PRINCE & SONS.

Linnæan Garden, Flushing, January 27th, 1837.

Feb 7

3t

FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

CYLINDRICAL STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's improved Cylindrical Straw Cutters, of various sizes, adapted to horse or manual power.

The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, have rendered them the most perfect and effective Straw Cutter in this country; they are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realize a profit by feeding to his cattle his corn fodder, which would otherwise in a great measure be lost. These machines are self feeders, the knives of spiral form, and act on a steel bed, in such a manner as to cut with great ease and despatch. The sizes are as follow, viz.

11 INCH BOX, suited to manual power, and capable of cutting 600 bushels of straw per day, being quite sufficient for the usual wants of farmers, price \$30 00

Extra knives for do. per sett, 4 00

14 INCH BOX, suited to manual or horse power: this size will cut 1000 bushels of straw per day, price 45 00

Extra knives for do. per sett, 5 00

20 INCH BOX, suited to horse or steam power, capable of cutting 125 bushels of straw per hour, price 75 00

Extra knives per sett, 8 00

§7 The above named machines are all made with endless leather, movable bottoms; boxes with stationary bottoms are only made to order, being inferior, and a very trifling less in cost.

ALSO FOR SALE,

CORN SHELLERS, with vertical cast iron wheels, will shell 25 or 30 bushels per hour, price 20 00

Ditto Do. a powerful machine, adapted to horse power, and capable of shelling 80 a 100 bushels per hour, price 40 00

1800 PLOUGHS, of various patterns and sizes, including those in general use and most approved, price, 4 50 a 20 00

WHEAT FANS, common Dutch and patent, price \$20 a 25 a 35 00

CULTIVATORS, for Corn and Tobacco, 5 a 6 50

COTTON GINS made to order from patterns, most approved by the southern planters, price \$50 a 150 each.

75 Tons Plough and Machine Castings.

AND IN SHORT,

Every other implement appertaining to the wants of the farmer.

ROBERT SINCLAIR, jr. & CO.

ja 24

Light near Pratt street whf.

FRENCH SUGAR BEET SEED.



THE subscribers have for sale 200 lbs. of white and yellow French Sugar Beet Seed.—This lot of seed was raised last season from French Seed of the finest quality and can be recommended as fresh and pure. Also directions on the cultivation of Beet Sugar.

In store, an extensive assortment of Garden Seeds, European Field Seeds, a large collection of Flower Seeds, and will have early in the spring a superb collection of DOUBLE DAHLIA FLOWER ROOTS, consisting of about 200 superb varieties.

ROBERT SINCLAIR, Jr., & Co.

Jan. 10, 1837.

2t.

A. P. C.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper.

Letters on the subject must be post-paid. oc1

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent, 87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 43.

BALTIMORE, MD. FEBRUARY 21, 1837.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, FEB. 21, 1837.

We have conversed with several farmers who are extensive grain growers; and have received letters from many others, and from all we can learn, we draw the conclusion, that serious apprehensions are entertained for the safety of the ensuing crops of wheat and rye. That the severe frosts of the latter part of November and December did do much injury, we doubt not, but still hope that "He who tempers the wind to the shorn lamb" will reward the labor of the husbandman by a fruitful coming harvest.

As the season is fast approaching when clover and other grass seeds will be sown, we deem it advisable to bespeak for their future pastures and meadows, from our agricultural brethren, a liberal bestowal of seed. He who sows scantily must expect to reap in a proportionate degree, or to gather more weeds than hay. In every soil there are ample supplies of the seed of every variety of wild and noxious herbage, and if these are not supplanted by a wholesome covering of artificial grasses, they will inevitably germinate, and show their pestilent fronts to the annoyance of proprietors, and the discomfort of their stock: for the earth will be busy in despite of all the maltreatment it receives at human hands.

THE HOLLOW-HORN.—As this is the season of the year when we may expect this disease to make its appearance among the horned tribe, we would remind their owners, that by pouring a tea-spoonful of the spirits of turpentine in the cup or cavity in the back of the head of cattle, they may save them from the effects of this always unpleasant, and often fatal disease.

Give such hogs as you have in your pen, once a week, a few shovels full of charcoal, or pieces of rotten wood.

If those who sow their clover seed on wheat and rye, were to harrow and roll it in, both the grain and grass would be greatly benefitted: this work, however, should never be performed while the ground is wet.

Every farmer, who has a few acres to spare for such purpose, should devote it to patches of the Palma Christi and Sun-flower. The first is in great request for making Castor Oil, and the latter for expressing table and lamp oil, and both bring good prices.

All manure intended for your corn or other crops, should now be hauled out in place, so as to be ready for use when required; much time, always precious at planting seasons, may be thus saved—deposite it in bulk convenient to the field, or on the very verge of it, where it is to be used.

Examine all your tools and implements, and if not in order, have them forthwith repaired, don't have to send your plough or your harrow to be mended when wanted—always be in advance of your business.

Did you make root crops for your stock last year? If you did not, do so this, and next year you will thank us for reminding you of what you ought to do.

AGRICULTURAL JURISPRUDENCE.

We learn from the *Silk Cultivist*, that at the late term of the Supreme Court of Errors in Hartford, Connecticut, a question of Agricultural jurisprudence was settled, which has often been the occasion of much controversy, and sometimes of a total interruption of that social intercourse and interchange of kind feelings and offices, without which, neighborhood ceases to be a blessing, and actually becomes a curse. The question arose in an action of trespass for taking a portion of the fruit from a peach tree. The facts in the case were these. The trunk of the tree stood about four feet from the division line between the plaintiff and defendant, and its roots and branches extended some distance into and over the defendant's land. The defendant plucked the fruit from the branches overhanging his

land, to within one foot of the line, for which the action was brought.

The defendant claimed—

1st. That he was tenant in common with the plaintiff in the tree, and consequently had a right to take from the branches on his side of the line.

2d. That if he was not tenant in common with the plaintiff, he was owner in severalty in that part of the tree which drew its nourishment from his soil, and that he had a right to take the fruit from the branches that overhung his land.

3d. That if he was not the owner of the part of the tree which is sustained by, and overhangs his land, still he was entitled to the fruit growing on such branches.

4th. That he had a legal right to remove the overhanging branches and projecting roots, they being a nuisance which he had a right to abate.

The court ruled the first three points against the defendant, and decided that the ownership of the tree was in the proprietor on whose land it was originally planted, and that he, of course, was entitled to all the fruit, though the roots and branches may have extended into and over the land of the adjoining proprietor. On the last point the court decided that the projecting roots and branches were nuisances which the defendant might have abated; but that he had no right to appropriate the fruit to his own use.

BOUNTY ON SILK.

The advantages resulting from state governments granting bounties for the encouragement of the growth and manufacture of silk, is thus favorably spoken of in the message of Governor Everett, of Massachusetts. His Excellency remarks:

"A law was passed, at the last session of the legislature, to encourage the manufacture of silk. The bounty provided has been paid to several applicants. Facts which have been developed, in the course of the year, appear to strengthen the hope expressed at the commencement of the last session, that this branch of industry is destined to prove of immense importance to the commonwealth. The difficulties in reeling, which were supposed to constitute the great obstacle to the introduction of the manufacture, have been overcome, and machinery for spinning and weaving, of admirable efficiency, has been contrived. Specimens of silk fabrics from power looms in Mas-

sachusetts, have been exhibited to me, which warrant sanguine expectations of entire success in establishing the manufacture."

That the silk culture is destined at a day not distant to become one of the main branches of agricultural industry in America, we have not the slightest doubt. Already it is working its way to the popular favor, and every succeeding effort at its introduction must, we think, tend to fasten it still stronger upon the affections of cultivators. Above all other productions of the earth, the mulberry we think is best calculated to advance the interests of landholders, and especially those owning worn out soils. While upon this point, we will extract a few remarks which we made in our *Manual*, and which we find credited to the Silk Culturist in many of the papers.

"There is perhaps no branch of human industry offering so many and such strong inducements to pursue it, as does the silk culture. For in five or six weeks, with care and attention, the whole labor of producing the raw silk is over, and such is the immense net profit resulting from it, that a very few acres of even the *poorest land*, in that time, will yield sufficient to support an ordinary sized family in comfort. The poorest sands and gravels, with very little manuring, will produce the mulberry as kindly as the richest and most generous soils.

"It is known, too, that the foliage raised on the former, imparts more elasticity and lustre to the silk, and is infinitely better suited to the production of the article, than that which is grown on the best and most fertile lands. An advantage, such as this, is of immense value to the country, it places the most sterile portion on an equality at least, with the most high priced lands in the country."

The profitable employment of our worn out lands is not, however, the only advantage to result from the cultivation of the mulberry. In the feeding of the worms, an ample source of employment, at once pleasant and profitable, will be opened to the poor of every neighborhood. In it the lonely widow and her orphan children, the decrepit and the infirm, may all find occupation peculiarly suited to them. The gathering of the leaves as well as the feeding of the worms can just as well be performed by children from 6 to 10 years of age, as by adults. All that would be necessary even in the largest establishments, would be to have a careful individual or two, upon whom reliance might be placed, to give a general superintendence over those engaged in such work.

THE TURNIP FLY.

A method of preventing the ravages of the turnip fly has been adopted at Hampstead.

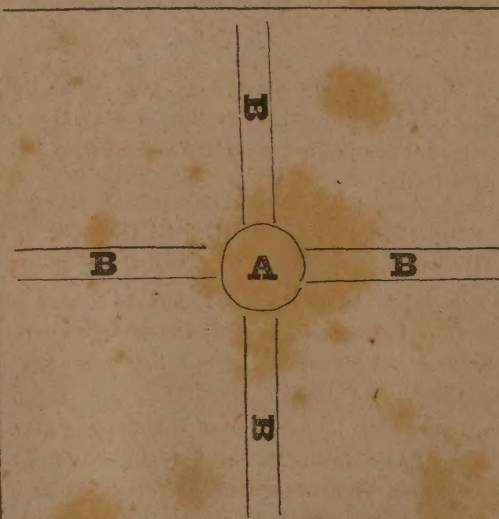
The practice is founded upon the fact that the fly emits its eggs in the autumn, and that they

are not hatched till the next spring, when the warmth and the fruitful state of the soil by repeated ploughings and harrowings, admit of the generating effects of the sun's rays. It is at this period the turnip is generally sown; the plant therefore springs up about the time the fly is hatched, and a supply of food being thereby afforded, it is not surprising that the fly should multiply and thrive. If instead of sowing immediately, the soil is brought into as fine a state as possible and the sowing delayed for ten days, although the fly would be hatched, it would die for want of its natural food. The existence of a fly in the field may be ascertained by placing cabbage leaves at night, and examining them in the morning.

A CHEAP PLAN FOR BURNING SHELL LIME.

Having had several applications from our subscribers for a plan for burning shell lime, we have procured the subjoined *sketch* of a *lime kiln* from a gentleman whose experience and success qualify him for the task. We are the more pleased with these frequent calls for information upon this head, because it affords to our mind the best possible evidence, that the spirit of improvement is abroad. The *Diagram* given below, is for 3,000 bushels of shells; its dimensions can be either increased, or decreased, to suit the quantity intended to be burnt.

The kiln should be preserved in its square form, hence the necessity of bringing out the wood to the extreme points of the square in every succeeding layer of wood.



Explanation of the Diagram.

To burn a kiln of 3000 bushels of oyster shells the kiln must be 33 feet square, and be constructed as follows:

A. A circular excavation, or pit, 3 feet wide and 1 foot deep. In this centre, wood 4 or 5 feet long is placed endwise, forming an arch or partial funnel, beneath which place straw, brush or other small dry wood that will ignite rapidly, so that fire can be communicated through the flues by means of a rod or pole attached to it.

B.B.B. Trenches, 1 foot wide and 1 deep, extending the whole length of the kiln and communicating with the centre A. These trenches or flues must be kept open during the whole operation of burning, as the perfect burning of the shells depends upon it. In order to keep them open, large green logs of wood that will not burn out speedily must be placed cross-wise, close to each other, and if entire logs extending the whole length of the kiln so much the better. Wood must now be put over this entire surface, say 2 feet thick, then throw on oyster-shells, say 1 foot deep, levelling them so as to present an even surface; then wood 2 feet deep, next oyster-shells 3 feet deep, and so on alternately, increasing the quantity of shells and decreasing the quantity of wood as you progress up to your terminating point. It is important to preserve the kiln's square.

In order to secure a good fire at the onset, brush-wood, old dry stumps, or dry lap-wood of any kind should be liberally intermixed with your other wood, and after the kiln becomes once thoroughly ignited, there will be no other difficulty than that of preserving an equality of heat; this with very little attention may be effected. Whenever the burning is greater at one point than another, the flue, or trench, in that direction should be stopped up with mud or earth, which must be removed, as necessity may indicate. After the kiln is fairly fired, one or two men at farthest will be sufficient to watch it, as the only care necessary is, to check any irregularity of the burning by throwing mud on the part.

The shells will effectually be burnt in about three days.

OBSERVATIONS

Relative to the Cultivation and Management of the Plum, and Grape.

[Continued.]

PLUM.

Plum trees, from their naked, and white young, tender skin, is frequently much injured by a small bug called the Curculio, which perforates the skin of the fruit soon after its formation, and deposits its egg, and that, in due time hatching, its product feeds upon the tender pulp, and at length occasions a very large proportion of the fruit to fall from the tree before it arrives at maturity; it is a fact well established, that the fruit does not suffer so much in this way, where the ground is constantly trodden; as in yards, walks, and lanes, or where the ground is paved as in town yards; in such situations large crops of fair and large fruit are produced. Nectarines and Apricots are in a degree subject to the same disaster, and require the same care as the plum. The trees ought to be planted in situations where the falling unripe fruit would be eaten by Poultry, or Swine, or be otherwise destroyed. As this fruit contains the insect which will, by undergoing certain changes, be ready to destroy the fruit of the succeeding year, I would recommend in Cities, to plant in pavements, and in Country places, in hog pens; but sufficient room must be allowed in the pens, so that the manure would not accumulate in large quantities around the trees, so as to destroy them; a moderate share

of it, however, would be of service; for the plum requires rich ground.

And as the Curculio is an inactive and clumsy insect, only capable of flying a short distance at a time; crawls but slowly up the tree, by its nature is timid, lets go its hold on the slightest disturbance and falls to the ground, its native hiding place, the probability is, that they would be so often disturbed by the hogs rubbing against the trees, thus situated, as to be deterred from their attempts to ascend. It is known to be the habit of hogs to delight in rubbing themselves against posts, stakes, or any other bodies in their enclosures, and hence, in that habit would the plum trees there located find a security from its greatest and most fatal enemy. Indeed their security would be manifold; for besides exciting their fears, and thus restraining them in their endeavors to get up into the tree, all that fell to the earth would be devoured by the hogs on the instant, as well as all the fruit which might fall from the effect of the injury received by being impregnated with the egg of the Curculio. In addition to this, the hogs would so trample the earth around the trees that the insect could not bury itself, and would be cut off from the opportunity of undergoing those changes essential to the production of a new progeny to perpetrate similar evils the next spring. My confidence in the advantages arising from the shaking of the plum tree was lately confirmed by a successful experiment I saw an account of, where the plum tree stood so near the pump that a line tied to it, and to the pump handle which would shake the tree as often as water was pumped up, which completely preserved the fruit from the effects of the Curculio.

GRAPES.

If people who have property of their own, were sufficiently acquainted with the delicious qualities of the grape for desert, and to hand to their friends as a choice variety, they would seldom be without at least one dozen vines in their yard; being of easy culture, they soon arrive at a bearing state, and are very productive, but we are thrown back in the culture of this delicious fruit half a century by making experiments with European vines, many of which have been kept there in hot houses, and consequently, do not suit the open ground, where they are either killed by the frost, or so effected by insects, as to rather discourage the proprietors in their culture.—Instead of them, I would, after twelve years experience, recommend to my friends the best kind of native grape found here. Major John Adlum, the father of the vine culture in this country, observes, that it is his opinion, that the Catawba grape is worth all the other grapes yet proved in the United States; the next best is the Isabella and Bland grapes. Dr. Norton's seedling and Hebermont's Madeira, are, no doubt, very valuable grapes from their general character; these I have not proved sufficiently, but will soon, if I live, having them, as well as many other good sorts now on trial. I once planted a Bland grape, a rooted plant of one or two years growth, and on the third year the produce was estimated at one peck of fruit; the fourth year, two to three bushels. The vine is now very large and productive, having been plan-

ted 16 years—When in fruit, it would be well worth calling to see; it is situate on the north side of Pratt-street, between Howard and Sharp, where I formerly lived, and where the very respectable proprietor would take pleasure to show it.

Manner of Planting, &c.

Before planting, prepare the ground where they are to stand by fine tilth, for 18 inches or more deep, and five feet square, and made rich with old compost and ashes, or either. The ground thus prepared, procure one or two year old rooted plants, that have been carefully taken up with the most of their roots—then open the ground which has been prepared for them, about seven inches deep, wide enough to lay the roots out at their full length, and distribute them regularly around, and fill in the finest mould, and press it on the roots gently—then level up the hole.—The next spring, cut down the vine to the two lowest strong buds; when these begin to shoot, select the best and strongest one and rub the other off, and train this season's shoot to a stake, occasionally rubbing off the lateral branches as they shoot. The second season permit two branches to grow in place of one, and the third season permit four branches to grow, always cutting down as low as can be, to get good buds, to furnish the number of shoots wanted; instead of one stake, now have trails of strips to which these four branches may be tied in the form of a fan—the next spring select two of the strongest branches, and leave five or six buds of the last season's wood to produce fruit—the other two branches must be cut down to two buds, the best one only permitted to grow to produce bearing wood for the next year's crop—but, in order to make the fruit-bearing branches break their buds well at each eye, the end must be brought around in form of a hoop and fastened near the ground, to remain there only until all the buds have fairly shot; then fasten them to the trellis, and every season thereafter, cut one-half of the branches of the preceding year, down to one strong bud, for the purpose of producing strong wood for next year's crop, and shorten the other branches to from three to nine eyes, according to the strength of the branch, taking care to tie the branches to the trellis as they grow, and to pinch off the lateral branches, and tendrils also, as soon as the fruit are as large as a huckleberry, and shorten the branch at the third joint from the fruit—cultivate them shallow and regular, so as to prevent weeds or grass from growing, and every fall dig in a coat of manure around them, and you will have great crops and delicious fruit, provided they are permitted to remain on the vines until fully ripe.

ROBERT SINCLAIR.

We have omitted to state that a sample of Segars has been received from Dr. Joseph E. Muse, of Cambridge, Md., and placed with T. H. Dawson & Sons, for retail to those fond of the luxury of a good segar.—They are manufactured from Tobacco, raised by the Doctor, of seed obtained by him from Havana, and are in every respect equal to those imported.—*Easton Gazette.*

BEET CULTURE.

INTERESTING CORRESPONDENCE.

We have been favored with the following letter to Mr. Clay together with Mr. C.'s reply.

United States Gazette.

PHILADA., Dec. 19, 1836.

Sir:—Not conversant with the intended movements in regard to the proposed reduction of duties on various articles, but having glanced over the proceedings of congress and noticed that the subject will soon be before that body, and from the remarks on the proposed repeal of duty on Sugar, my mind reverted to that subject in which I have now for a year past, been so deeply interested. My pursuits are mercantile, but I feel that interest for any branch of industry that will benefit the country, that I have, so far as my efforts could avail, done all in my power, and I trust not without success, to introduce and establish in the United States, the culture of the Sugar Beet and the manufacture of Sugar therefrom.

I am aware it is making a great demand upon you, still I wish, most earnestly, to obtain your attention for a moment. I have recently been in a position to meet and become acquainted with Mr. James Pedder, from England, who had for years kept his eye upon the progress of the subject of making some attempt to introduce the same into the United States. I declined at first, persuaded that influence far greater than mine would be needed to introduce the matter successfully to our citizens.

However, deeming "nothing impossible to a willing mind," I proceeded. I introduced Mr. Pedder to our best agriculturists and chemists, and through them to James Ronaldson, Esq. Mr. Vaughan he had already known for several years. Mr. Vaughan, Mr. Ronaldson, and myself, conferred on the subject frequently, in Dec. 1835, and January 1836. I sought and procured such information as I could from the Journals of France and other publications, which was sufficient to decide its practicability, and became evident that it only required a hearty effort somewhere in order to succeed. With a subscription of \$50 each from John Vaughan, James Ronaldson and Samuel Richardson, Esquires, of this city, we enabled Mr. Pedder to depart for France, by agreement made on 6th Feb. 1836, (vide his Report) which was entered into with him in the names of Mr. Ronaldson, Mr. Vaughan, myself and others, and he departed from New York on the 10th day of Feb. 1836, furnished with advances and credit on London to prosecute his object even beyond the terms of the agreement, if found requisite and useful. After his departure, every exertion was made to raise donations sufficient to meet the expenses of the undertaking, TO INTRODUCE ALL REQUISITE ATTAINABLE INFORMATION, without any intention on our part ever to profit by sugar making. It was thought that a society would aid the thing, and disseminate it more advantageously.

Accordingly, from among the donors, the BEET SUGAR SOCIETY, was organized, but few of its members ever became sufficiently interested to take an active part. This was owing, I suppose, principally to their conviction that the undersigned was so actively engaged in it as to

leave little to be done by them, beyond the liberal pecuniary aid which they cheerfully extended. To the active exertions, however, of my worthy colleague, Benjamin M. Hollinshead, complete success, in carrying through our first views, has been secured.

Mr. Pedder wrote to me on the subject, from France, and his letters were published. He returned and made the Report I send you herewith.

About 500 lbs. of seed, from France, have been disseminated though the country from Missouri to Maine.

I visited our State Legislature a few days before they adjourned last session, and though business was pressing upon them, obtained their very favourable notice of our efforts, by a reference (made indeed at an unseasonable time, but unanimous) to the Committee on Agriculture, and the same evening met the committee, who, satisfied, no doubt, of the propriety of the measure, reported next day and recommended an appropriation of Three Thousand Dollars, to be placed in the hands of the Governor, to be applied to the introduction and dissemination of information relating to the manufacture of Beet Sugar and its encouragement, in the state of Pennsylvania.

From a press of business, though this recommendation unanimously passed the Senate, it failed to be noticed in the House, a circumstance, since, most deeply regretted by me, as it would have secured the active existence of the Society organized, and placed in their hands means to have rewarded ingenuity, by premiums, and made successful experiments in the production of sugar from our own soil. Thus left, with a heavy expenditure, and to reimburse the expenses of Mr. Pedder's mission, expense of the seed previously gratuitously distributed, publications, &c. reliance was had upon the well known, but too often taxed liberality of a certain portion of the benevolent and patriotic citizens of Philadelphia.

In this position of things, I have certainly the satisfaction to know, that the exertions, which have not been without labor, have availed much; for I am persuaded that the growing of the sugar therefrom, are destined soon to become parts of the agricultural and mechanical industry of the United States.

Even should no fostering care be extended to it, (such as wisdom and prudence would dictate,) native ingenuity, industry and perseverance, untrammelled by speculative jobbing, or joint stock beet sugar companies and land speculations, will fix it in the United States; and I think it is not going too far to predict that, in the present age, the product of sugar from our own soil, from the beet-root, will supply our own demand, and perhaps more.

France produced last year EIGHTY MILLIONS OF POUNDS OF BEET-ROOT SUGAR! more, by one-third, if I mistake not, than our Louisiana crop of the same period!! What does this not predict with our favourable soil and climate, where, already, this year, from the seed we have distributed, eleven per cent. of good granulated sugar is said to have been obtained from the root which in France yields but six per cent. average, and never over eight? My own observations have not

positively verified this, but I am led to believe that it was obtained in the vicinity of Albany, N. Y.

From the result of my own experiment (I have had opportunity to make but the one) though from accident my sugar did not granulate properly, I am fully satisfied that 8 per cent. of good sugar for refining, is to be obtained in the United States, from the beet-root.

The growing of Sugar Beet, and manufacture of sugar in the United States, so far as relates to this vicinity, stands thus:—In and about Philadelphia all who are interested (except indeed a few who have this season made and exhibited to me small quantities of sugar better than any I have seen from France,) are waiting to verify the success of others—every man is looking to his neighbour. In other sections of the country the subject has lately been taken up with more spirit. In March last, I received, in an indirect manner, a communication from Mr. M. Isnard of Boston, applying to be engaged in some branch of the manufacturing, by our society, under the impression that its object was the manufacture of sugar. Then, no society had yet been formed.

Informed of the real object we had in view, he turned his attention to excite an interest in Boston. Having had considerable practical experience himself, in all the departments of Beet-root sugar making, from having been engaged in its manufacture in France, he has, by his efforts, contributed to give an impulse to it in the State of Massachusetts.

Joint Stock Companies, Land Speculation, and a variety of ways for making money have been proposed, but none having for its object the true purpose of those engaged in this matter.

Some, disappointed in their visionary schemes of profit from the sudden increased value of land from its introduction, and failing to draw into their plans, those interested, have essayed to disparage the efforts of others whose consciousness of their own motives has been their guide, and to discourage its introduction.

Their success, small as it must be, will not be envied by the well wisher of his country's prosperity.

Herewith, I beg leave to transmit to you a translation of a document published by the Royal Society of agriculture of France on the subject, which do me the favour to peruse at your earliest convenience and hand over afterwards to my friend Dr. Thomas P. Jones, of Washington.

Do not suppose for one moment, Sir, that I have any scheme or plan in which I wish to engage you. I make this communication to you, simply because I have confidence in your large, honorable and patriotic spirit, and I am sure that any good work needs only to be known to you, to secure your approbation and enlist your efforts.

In what ways your assistance is to be rendered, I leave, respectfully and cordially, to your superior wisdom.

I am, with great regard and esteem,

Most respectfully, yours,

JACOB SNIDER, Jun'r.

To HENRY CLAY,
Senator of the United States.

WASHINGTON, 27th Dec. 1836.

DEAR SIR:—I received your favor of the 19th inst. with the paper published by the Royal Agricultural Society of France, on the subject of the manufacture of sugar from Beet. I have read those papers with much attention, and interest, attracted by what I had learnt of the progress of that manufacture in France, and by the patriotic endeavors of yourself and others in Philadelphia, to introduce it in the United States. I took pleasure in distributing some of the Silesian beet seed brought from France last spring, and for which I believe I was indebted to Mr. Ronaldson, and I caused some of them to be sowed at Ashland, my residence. Although it was late in the Spring, they grew very large and were more productive than any other beets which I have ever tried. There was a similar result with all to whom I gave any of the seed. I consider, then, that this important and first step towards the introduction of the manufacture of sugar from beet sufficiently ascertained. There is reason indeed to believe that the climate and soils of our country are better adapted to the growth of beets than those of France.

What is now wanted is a knowledge of, and experience in, conducting the processes by which sugar is extracted from the root. The paper from the French Society, which you have done me the favor to transmit to me, throws much valuable information upon this branch of the subject, and is, I think, worthy of publication and extensive diffusion.

In my opinion, the establishment of the manufacture of Beet Sugar in the United States eminently deserves the liberal patronage of Government. What, if successful, would so greatly redound to the common benefit, ought to be demonstrated by an experiment made at the common expense. For it is the apprehension, incident to all new and untried enterprises that now deter individuals from embarking in this. Owing to the diversity of opinions which exist as to the powers and duties of the General Government, which otherwise would be the most fitting to bestow the proper patronage, perhaps an appeal had better be made to the liberality of one of the State Governments; and I know of none to which it can be addressed with more propriety than that of Pennsylvania. Fortunately the sum necessary would not be large to make a full and fair experiment.

I have no doubt of the ultimate introduction of the manufacture either with or without the aid of Government, and I believe that at no distant day a great part of this necessary of human life will be derived from this new source. If we are to credit the authentic evidence obtained from the experience of France, the manufacture of sugar from beet is less costly than from cane.

Ought we not to admire, and to be profoundly penetrated with gratitude for the Providential care which, at a moment when, from various causes, the supply of this necessary article is likely to prove inadequate to consumption, opens a new and boundless source, assuring the poor as well as the rich, in all times and in all countries, of an indispensable article of subsistence?

I beg you to accept my individual thanks for

your valuable agency in bringing about the naturalization among us of this new manufacture.

I am, with great respect,

Your obt^d servant,

H. CLAY.

JACOB SNIDER, Junr. Esq. Philadelphia.

[From the Montreal Morning Courier.]

TO THE FARMERS OF CANADA.

AGRICULTURAL IMPROVEMENT, BY THE EDUCATION OF THOSE THAT ARE ENGAGED IN IT AS A PROFESSION.

No. 1.

"Whatever be the position of man in society, he is in constant dependence upon three kingdoms of nature. His food, his clothing, his medicines, every object either of business or pleasure, is subject to fixed laws; and the better these laws are understood, the more benefit will accrue to society. Every individual, from the common mechanic, that works in wood and clay, to the Prime Minister, that regulates with a dash of his pen the agriculture, the breeding of cattle, the mining, or the commerce of a nation, will perform his business the better he understands the nature of things, and the more his understanding is enlightened. For this reason, every advance of science is followed by an increase of social happiness"—says political economy.

The citizens of Montreal and Quebec appear to have been a good deal interested lately on the subject of education. The excellent lectures of Dr. BARBER, have, I believe, increased this interest, and there is every reason to hope, that much good will be produced in consequence.—Whether it is in contemplation to extend the benefits of education beyond the bounds of those cities, I am unable to say, and from this uncertainty, I am induced to address the agricultural population, and endeavor to convince them, that if education is useful and necessary for the inhabitants of cities and towns, it will be found equally advantageous and pleasing for those of the country. I am sorry to say, there is practical proof in most countries, that education is not considered by *all*, to be essential to render every man competent for performing the part which he undertakes, or which his circumstances oblige him to perform in life, with advantage and satisfaction to himself and others. Hence it is that education is much neglected, and from this cause agriculture must languish, and never will be in a flourishing condition, unless a larger proportion of the occupiers and cultivators of the soil are usefully and practically educated. There are many circumstances connected with agriculture, besides ploughing, sowing, planting, and harvesting, that requires to be perfectly understood by the farmer, in order to ensure his success, and which an ignorant man never can understand.—I would not continue a farmer for one day, were I convinced that it required neither education nor science to practice my profession profitably. From my youth, I have been taught to look upon the profession of a farmer, as above all other professions, and I confess this opinion has "grown with my strength." In the British isles, I never heard this fact disputed. It is only when education is wanting, that the profession is lowered in estimation. From the very nature of things, ag-

riculture being the source of all wealth, and more particularly so in Canada, why should education be less necessary for those who practice it, than for the merchant, manufacturer, or shopkeeper, the brewer, the baker, and a host of other mechanics and trades-people? To view the matter in another light, education increases knowledge, and knowledge gives power, which must be desirable, because it may be exercised advantageously in various ways. It then becomes a question of some consequence to ascertain how the power which knowledge confers is at present shared between the several classes which compose the population in Canada. I am sorry to say, that though the agricultural class forms an immense majority, that they are by no means educated in proportion to their numbers, compared with the other classes; and that consequently, a minority possess a preponderating power and influence.—There are various causes to which this state of things is to be attributed. It has often been to me a matter of regret, that few of the young men educated at the colleges and seminaries in Canada, hitherto, have become farmers. I suppose they must have considered that were they to settle on farms, their education would be of no value to them. They almost invariably apply themselves to the professions of lawyers, doctors, notaries, merchants, shop-keepers, or any other rather than to agriculture. This is one that it would appear is looked upon as a degrading profession for an educated young man. How strangely do men differ in their estimation of things?—The greatest men of former ages, and Washington, of our own times, when they retired from public life, occupied themselves in husbandry, as the only employment fit for great men.

How injurious it might be, that those who are the best qualified to promote agricultural improvement, and raise the character of agriculturists, are withdrawn from that occupation, which ought to be honorable, and that station in society where, of all others, they might be most useful to the community. Farmers cannot occupy that high station they may and ought to do in British America, without a sufficient education. It is this alone that is necessary to qualify them to fill this station, and retain it. I will freely admit that a man may be well educated and not be a good farmer, because a practical knowledge of agriculture is necessary to constitute one. I am persuaded, nevertheless, that it will be difficult to find an uneducated man a good practical farmer, capable in all seasons, and in every circumstance, to make the most profitable use of his farm and opportunities. If education is necessary for men that are engaged in pursuits of infinitely less consequence to the world than agriculture, how can it be dispensed with by the farmer?

I would appeal to those who have had the advantage of a good education, and who make a good use of it, by continuing to be *reading men*, that would compensate to them for the want of education? Without including any of that knowledge obtained by education that is useful and profitable in common life, the man of science has other exquisite enjoyments to which the ignorant must ever be entire strangers. I cannot forego the opportunity to copy here a few lines from Dr. Dick—"If substantial happiness is chiefly

seated in the mind, if it consists in the vigorous exercise of its faculties, if it depends on the multiplicity of objects which lie within the range of its contemplation—if it is augmented by the view of scenes of beauty and sublimity and displays of infinite intelligence and power—if it is connected with tranquility of mind, which generally accompanies intellectual pursuits, and with the subjugation of the pleasures of sense to the dictates of reason, the enlightened mind must enjoy gratifications as far superior to those of the ignorant, as a man is superior in station and capacity, to the worms of the dust."

My object in this communication, and those which I propose shall follow, is, to endeavor to engage the attention of agriculturists, in particular, to the all-important subject of education.—Without presuming to dictate, I shall simply submit for their consideration, in the clearest manner I am capable, the advantages and pleasures that would be likely to result to them, and to the whole community, from the useful, practical, and general education of the agricultural class. When I have done this, I shall next state what, in my humble judgment, is necessary to constitute this education, and how, subsequently to the period of leaving school, education may go on constantly, extending and improving during the full term of existence, with all such as are desirous of attaining useful knowledge without in any way interfering injuriously with their business as farmers. This latter point, I think, it must be essential to prove, and I expect I shall be able to do so satisfactorily. If I shall be unable to accomplish what I undertake, I trust, however, that what I may advance will be the means of inducing those who are more competent, to take the subject into consideration. If the prosperity of agriculture is promoted, it is of no consequence to me who shall be the instrument.

WILLIAM EVANS.

Cole, St. Paul, Dec. 28, 1836.

[From the Genesee Farmer.]

CONSUMPTION OF GRAIN.

Few individuals are aware of the immense amount of grain required for a nation's consumption; or the average annual production of the grains that are used for the purpose of making bread. It must be evident at a glance, that all calculations on this matter can be regarded as nothing more than mere approximations to correctness; but even this may show us the folly of supposing, that in case of any considerable failure of our crops, the importation of a few ship loads of wheat from abroad, can have any considerable effect in supplying the deficiency, or preventing the utmost necessity of prudence and economy at home. During long discussions which have taken place in England on the subject of the corn laws, the necessary quantity of grain required to find an individual with bread, has been rigorously investigated, and it has been estimated, that the average consumption, including young and old, would be about five bushels to a person.—Admitting the grain used was all wheat, this estimate we think would be rather too liberal; including corn and rye, it probably would not be found far from this truth; and some little inqui-

ry has convinced us that this amount may be safely taken as the basis for a few calculations.

The population of the United States may be put at fourteen millions; to supply this number with bread would require seventy millions of bushels, if wheat was used; if corn or rye is substituted, a greater allowance must be made.—If we take the population of this state, about eleven millions of wheat would be required for our consumption. A late writer in a southern journal has estimated the average annual production of grain in the United States as follows:

Indian Corn,	100,000,000
Wheat,	50,000,000
Rye,	20,000,000
Oats,	20,000,000
Barley,	1,250,000

We are inclined to think these amounts, with the exception of corn and rye, quite too low.—The quantity of oats is unquestionably much greater; and the barley is wholly underrated.—New-York alone produces double the quantity named, and one county in the Western district, (Onondaga) in 1835, carried to market nearly or quite one half that amount. Perhaps one half of the corn, the most of the wheat, and half or three-fourths of the rye is used for bread, the remainder of the rye, with a large part of the corn is manufactured into whiskey; and the barley principally goes to the breweries. The oats, with the corn not required for bread or whiskey goes as feed for horses and fattening pork. In New-York and the the New-England states the corn crop of the present year will not equal one half the average crop in the same territory, and the whole wheat crop of the United States will be deficient at least one third. The resources of the country for bread therefore stand nearly as follows, allowing the corn crop of the present year to equal three-fourths the usual average:

Corn,	37,500,000
Wheat,	37,500,000
Rye,	10,000,000

making a total of grain suitable for bread, of 85,000,000 of bushels; being fifteen millions more than would be required to supply the nation with bread for one year. Could the grain, therefore, at present in the country be distributed among the population in an equal ratio, or as in consequence of the partial failure of the crops would be ridiculous; but such distribution cannot be made, and the experience of former years of plenty is sufficient to convince the observer that the poverty, the idleness, the inattention, the improvident and vicious habits, of so many of the people, will this year be severely punished by the difficulties of obtaining the necessaries of life. But wheat, corn and rye, do not constitute all the sources of bread which are open to the people of the United States. Buckwheat, of which millions of bushels are annually raised, when properly prepared and cooked, forms one of the most agreeable and wholesome substitutes for wheat bread, to be found in the vegetable kingdom. A large proportion of the English, in the western counties of that kingdom, use barley for bread; and in Scotland the use of oatmeal is proverbial. Both these substances as bread are unknown among us, but there can be little real suffering apprehended, so long as materials for bread,

so nutritious as the experience of England and Scotland prove barley and oatmeal to be, exist in profusion in the country. It is somewhat curious to notice the advance made in the culture of wheat in Great Britain. At the period of the Revolution, or in 1690, the wheat grown was estimated at fourteen millions, and barley at twenty-seven millions of bushels. In 1780 the produce of wheat had advanced to one hundred millions, and that of barley to thirty-five millions; yet notwithstanding this immense production of grain, owing in a great measure to the unnatural state of things produced by their system of corn laws, there is more real suffering for the want of bread in Great Britain and Ireland, than in any other part of Europe.

One of the greatest blessings of free trade, or the extensive system of commercial exchange which is going on in the world, is the general distribution and equalization of the prices of grain which it is the means of effecting. Wherever there is a surplus it is sure to find its way to those countries where a partial or temporary scarcity exists; and the low prices of one country, or one section of a country, are corrected by the higher prices of the country where that surplus of grain is required. The famines which in former days used to desolate whole countries, can have no existence at the present day, while the means of distribution and supply, remain in their present perfect and active form; for owing to a wise ordinance of Providence, a universal scarcity of food was never yet known—the failure is only partial. In the United States, for instance, were the means of communication as imperfect as they once were, the region east of the Alleghany mountains might be suffering the distresses of famine, while the valley of the Mississippi was filled to overflowing with bread; the difficulties of transportation would render any relief which might be afforded, of the most limited kind.—Now, the Atlantic states might “go to mill” to Ohio or Indiana, as the New-England states do to New-York, and hardly feel any inconvenience from the delay, or any danger of failure in the supply. So if prices in the United States make the importation of grain an object, or the failure of a home supply renders it necessary, the commercial man is ready to take advantage of the circumstance, and the shores of the Mediterranean, the Baltic or the Black sea are laid under contribution to equalize the demand and the supply. His profits arise from the difference in the prices at the two places.

In making our statements of the quantity of grain required for consumption in this country, we must not forget that there are two or three millions of people in the West Indies and South America, as much dependent on us for bread as our own citizens. Their flour they receive from us, and from us they must receive it, no matter how extravagant prices should become. Grain, the West-Indies might import from abroad, but they have no flouring mills, and wheat ground, for the purpose of sustenance, is far inferior to corn. Our exports to those countries amount to seven or eight hundred thousand barrels, and when we add to this the 100,000 barrels required for our manufacturers of cotton, &c. we see that we must make a deduction from the wheat consum-

ed in this country of about a million of barrels, or five millions of bushels. Notwithstanding wheat can be delivered at New-York and Baltimore at a less freight from Hamburg, Dantzic, Naples or Odessa, than from Ohio, it is not probable that the supply from abroad will reach one half the amount required for the West Indies and our manufactories, and consequently will touch but in a very slight degree the consumption or prices of wheat in this country.

[From the Southern Agriculturist.]

THREE EXPERIMENTS ON THE RAISING OF CORN.

Mr. Editor—In conformity with your polite request, I furnish you with three experiments, which I made last year in the raising of corn.

1st Experiment—On a piece of land, well drained, though low, I ploughed up well, one acre for my experiment. This was done sometime in February. About the 10th of April, I planted the land in corn, after the following manner. About 5 feet apart each way, or in squares of 5 feet, I made hills, under each of which I deposited one quart of cotton seed (black seed cotton.) This gave me 1764 hills to the acre, which at the rate of one quart to each hill, took a small fraction over 55 bushels of cotton seed, to manure the entire acre.

During the season, I ploughed between the hills each way, with the cultivator; once when the corn was two weeks old, and once when it was six weeks old. Besides this working, I hauled and hoed up to each hill three times during the season, as the corn needed it. I should have stated before this, that I left four stalks in each hill. This gave me 6,056 good stalks to the acre. I did not gather until the first week in November. As soon as I gathered it in, I shelled it in a cornsheller, which was handy, and measured off, as the produce of this acre, 52 bushels 3 qts. of as good flint corn as I ever saw. The seed planted was the common flint—not selected except that the largest ears were planted. I put 15 or 20 seed in each hill, a practice I always follow, for the following reason: when the superabundant stalks or plants are pulled up, it loosens the earth about those which are left behind, lets in the air and sun to them, and greatly advances the growth of the young plant.

2d Experiment—This experiment was as follows. An acre of land, adjoining that on which the first experiment was tried, was listed in rows of 5 feet apart; under the list, cotton seed was scattered, at the rate of 55 bushels to the acre. The listing was done early in March, and, about the 10th of April, I made a bed upon the list, of the same size with beds usually made for corn. I planted the seed 15 inches apart, on the bed, and left one stalk. I worked this corn the like number of times with the former, and gathered it in the same day. After shelling it out, it measured 46 bushels 5 quarts.

3d Experiment—This experiment was on the same land with the two former, and was the same in all of its details, with the second experiment, except that the seed was planted 4 feet apart on the bed, and two stalks were left to each hill. I gathered, shelled, and measured this corn,

at the same time with the other, and its yield was only 39 bushels 15 quarts.

The blades—The blades collected from the corn planted as above, stood as follows. The corn planted 5 feet square, with four stalks, yielded most blades. Next in yield, came the corn planted 15 inches, with one stalk, and last of the three was the corn planted 4 feet apart. Satisfied with my experiments, Mr. Editor, and as indicative of my sentiment, when I reflect upon what we can do at home, by a little extra labor, I remain and sign myself, No EMIGRANT.

BREAKING COLTS.

The habits of a horse, whether good or bad, are frequently the result of the first efforts to subject them to the service of man. On these mainly depend his future usefulness. It cannot be denied that there are a variety of tempers among those noble animals which may require diversified means to affect their subjection; yet in no case should gentleness be disregarded. The practice, too generally prevalent of letting colts arrive at almost their full vigour before an attempt is made to accustom them to bit or saddle, is believed to be erroneous. By the saddle, we do not mean that the colt should be made to bear heavy burdens before he has arrived at a suitable age; but by early use of it, he will become so habituated to its use, as to receive at a proper time, the addition of weight without remonstrance or fretfulness. If the colt has acquired considerable age before an attempt is made to curb his waywardness, nothing should be neglected to render the attempt successful and decisive.—If the colt is to be broken to the saddle, care should be used in securing it firmly upon him, because carelessness in this, may lead to bruised limbs, besides being a positive injury to the temper of the horse. To prevent the colt from rearing, and falling backwards, as is frequently the case, a rope should encircle his body near the fore legs—another, passing over his neck and between his legs, should be firmly tied to the one enclosing his body, which will effectually prevent his rearing. For further suggestions on this point, we subjoin the following from Deane's New-England Farmer:

"The way of breaking a young horse that is mostly used in this country, is highly absurd, hurtful and dangerous. He is mounted and ridden before he has been used to the bridle or to bearing any weight on his back. If he will not go forward he is most unmercifully beaten; by which his spirits are broken, and his strength impaired. If he rears up, he is pulled backwards with the risk of hurting both horse and man. If he runs and starts, as he probably will under such management, he flings the rider, perhaps is frightened, gains his liberty, and is encouraged to do just so the next opportunity; and the unfortunate rider blesses himself, as he has reason to do, if he escapes without broken limbs. Or if the horse should chance to go kindly, the rider continues the exercise till the horse is fatigued, discouraged and injured.

Instead of this mad management, the way practised in the older countries should be adopted. Let a horse first of all be tamed with the bridle, by leading him again and again; in the first place after, or by the side of another horse;

and after he walks well, bring him to trot after his leader. In the next place, put on the saddle, and lead him in that way for some time, after you. Then lay a small weight on the saddle, and if he be apt to start, fasten it, that it may not be flung off, increasing the weight from time to time, till he learns to carry what is equal to a man's weight.—Lastly, let a man gently mount him, while another hold him by the bridle, and fix himself firmly in the saddle. The place of riding is recommended to be a ploughed field. Let him thus be ridden with a horse going before him, till he learns the use of the bit, and will stop, or go forward at the pleasure of the rider, and without the application of much force. Being exercised in this manner a few times, and treated with all possible gentleness, there will be no more occasions for leading him. He will go well of himself; and be thoroughly broken, without so much as giving him one blow, and without danger or fatigue to the horse or rider. And, what is much to be regarded, the horse's spirits will be preserved, though he be sufficiently tamed. In teaching a horse to draw, gentleness must be used. He should be tried first with other horses, whether in carting or ploughing; and the draught should not be so heavy as to fret or put him to great exertion till he has learned to draw steadily. After this he may be put to a pleasure carriage, coupled with another rather than alone, and to a sleigh rather than a chaise."—*German town Telegraph.*

Famine in North America!—This sounds terrific, but it is true. At the *Trois Pistoles*, on the Gulf of St. Lawrence, to which we have before alluded, there are now actually *twelve hundred persons*, as appears by a circular in the Quebec papers, who are in a state of *actual famine* and destitution! The very humane editor of the Montreal Herald, remarkable for his bitter reproaches upon the people of the United States, in coldly noticing this horrid affair in a heartless paragraph of about four lines, shrugs up his shoulders and turns his back upon the subject, by saying the poor creatures deserve this fate for their foolish attempts to cultivate their lands, and their dependance on the provincial legislature for charity!—*N. Y. Sun.*

SILK CULTURE—BEET, MAPLE AND CANE SUGAR—COTTON—WOOL.—A company with a capital of \$100,000 for the manufacture of Silk, has been established at Wilmington, Delaware. Our New Orleans Cane Planters have cut up the sugar maple trade in N. England and Ohio. Our beet sugar will, perhaps, one day drive both out of the market, and it may be that the culture of Silk in the North will bear hard on the monopoly now enjoyed by cotton growers in the South and West. Silk stuffs, however, may be worked up by us of the North chiefly for warm latitudes, but we must look to ourselves for the great staple of wool, and to the South for that which is next most important to us, Cotton.—*N. Y. Star.*

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 *Morus Multicaulis* trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 13. Editor Farmer & Gardener.

CYLINDRICAL STRAW CUTTER.

THE subscribers offer for sale Sinclair & Moore's improved Cylindrical Straw Cutters, of various sizes, adapted to horse or manual power.

The very important improvements made by Messrs. Sinclair & Moore on these machines, giving them extra strength and durability, have rendered them the most perfect and effective Straw Cutter in this country; they are so constructed as to be capable of cutting cornstalks and fodder, tangled hay, &c. with great ease, thus enabling the farmer to realize a profit by feeding to his cattle his corn fodder, which would otherwise in a great measure be lost. These machines are self feeders, the knives of spiral form, and act on a steel bed, in such a manner as to cut with great ease and despatch. The sizes are as follow, viz.

11 INCH BOX, suited to manual power, and capable of cutting 600 bushels of straw per day, being quite sufficient for the usual wants of farmers, price \$30 00

Extra knives for do. per sett, 4 00

14 INCH BOX, suited to manual or horse power: this size will cut 1000 bushels of straw per day, price 45 00

Extra knives for do. per sett, 5 00

20 INCH BOX, suited to horse or steam power, capable of cutting 125 bushels of straw per hour, price 75 00

Extra knives per sett, 8 00

The above named machines are all made with endless leather, movable bottoms; boxes with stationary bottoms are only made to order, being inferior, and a very trifling less in cost.

ALSO FOR SALE,

CORN SHELLERS, with vertical cast iron wheels, will shell 25 or 30 bushels per hour, price 20 00

Ditto Do. a powerful machine, adapted to horse power, and capable of shelling 80 a 100 bushels per hour, price 40 00

1800 PLOUGHS, of various patterns and sizes, including those in general use and most approved, price, 4 50 a 20 00

WHEAT FANS, common Dutch and patent, price \$20 a 25 a 35 00

CULTIVATORS, for Corn and Tobacco, 5 a 6 50

COTTON GINS made to order from patterns, most approved by the southern planters, price \$50 a 150 each.

75 Tons Plough and Machine Castings.

AND IN SHORT,

Every other implement appertaining to the wants of the farmer.

ROBERT SINCLAIR, jr. & CO.

ja 24 Light near Pratt street whf.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper.

Letters on the subject must be post-paid. oc4

CONTENTS OF THIS NUMBER.

Prospects of winter grain—admonition to sow grass-seeds liberally—preventive of the hollow-horn—advice to harrow in clover-seed—do. to plant patches of Palma Christi, and Sun-Flower—do. to haul out manure—do. to examine and have the implements of husbandry repaired—do. to raise root crops—a case of trespass adjudicated—propriety of granting a bounty on silk—prevention of the turnip Fly—a cheap plan for burning shell lime—observations on the culture of the plum and grape—interesting correspondence on the beet culture—address on the propriety of agricultural education—estimate on the consumption of grain in the U. S.—experiments on the raising of corn—method of breaking colts—famine in Canada—silk and beet culture—advertisements—prices current.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs	6 50	8 50
CORN, yellow,	bushel	98	1 00
White,	"	95	98
COTTON, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	18½	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	10 75	10 87
SuperHow. st. in good de'd	"	10 75	10 87
" wagon price,	"	10 25	10 50
City Mills, super,	"	10 00	10 25
Do extra,	"	10 25	10 50
Susquehanna,	"	—	10 50
Rye,	"	7 25	7 50
Kiln-dried Meal, in hhd.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,	"	—	2 75
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 75	8 50
Slaughtered,	"	7 25	7 75
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	62	65
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 75	—
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	1 35	1 40
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality,	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	2 30
Red, best,	"	2 20	2 25
inferior,	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	42	42½
" in hhd.,	"	39½	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,	"	2 00	—
WOOL, Prime & Saxon Fleeces,	pound.	50 to 60	30 32
Full Merino,	"	45 50	28 30
Three fourths Merino,	"	42 45	26 28
One half do.	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 21

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured	pound.	17	18
Shoulders,	"	—	15
Middlings,	"	—	15
Assorted, country,	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old,	each.	4 50	6 00
COWS, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	—	2 12
CHOP RYE,	"	—	2 25
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 50	—
Mackerel, No. 1, ——— No. 2	"	9 50	10 50
No. 3,	"	—	6 75
Cod, salted,	cwt.	—	—
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virginia 1
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	do	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton,	do	Bank of the Valley,
Salisbury,	5 per ct. dis.	Branch at Romney, 1
Cumberland,	1	Do. Charlestown,
Millington,	do	Do. Leesburg,
DISTRICT.		Wheeling Banks, ... 2a3½
Washington, } Banks, ½		Ohio Banks, generally 3a3½
Georgetown, } Banks, ½		New Jersey Banks gen. 1½a2
Alexandria, } Banks, ½		New York City, ½a2
PENNSYLVANIA.		New York State, ... 2½a3
Philadelphia,	½a	Massachusetts,
Chambersburg,	1	Connecticut,
Gettysburg,	do	New Hampshire, ... 2a2½
Pittsburg,	2a2½	Maine,
York,	½a	Rhode Island,
Other Pennsylvania Bks. 1½a2		North Carolina, ... 3½a4
Delaware [under \$5],	3a4	South Carolina, ... 3½a4
Do. [over \$5],	½a3	Georgia,
Michigan Banks,	6a	New Orleans,
Canadian do.,	6a	

CHINESE MULBERRIES, &c.

THE Subscribers have still on hand the following:— 30,000 Morus Multicaulis, the wood of which is fully matured, there having been no premature frosts on Long Island the past season. Also 50,000 cuttings can be supplied.

20,000 Ingrafted trees of the new Chinese Mulberry, with large thick leaves, remarkable for the quantity of nutritious matter, this species being sufficiently hardy for the most northern latitudes, and possessing all the advantages of the Morus Multicaulis—these are from 3 to 6 feet in height.

3,000 Hybrid Morus Multicaulis, with large leaves, and close joints, and 5 to 6 feet in height.

35,000 Florence Mulberry with entire leaves, in which point they differ from the common White Mulberry; these are imported direct from the best silk district of France, 1½ to 2½ feet in height, and will be sold at very low rates.

60 lbs. White Italian Mulberry Seed.

WILLIAM PRINCE & SONS.

Linnæan Garden, Flushing, January 27th, 1837.

feb 7

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FOR SALE,

A half Durham and half Devon Bull, — years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. no 15

FARMER'S REPOSITORY

No. 36 W. Pratt-street, Baltimore, Jan. 25.

THE proprietor avails himself again of the commencement of a New Year, to express his grateful thanks to his numerous friends and customers for their kind and liberal support of his Agricultural Establishment, and is happy to say that his ceaseless exertions to accommodate the public, have not been without a corresponding encouragement from them, and with his present Improvements and Machinery, he is able to manufacture his Agricultural Implements much better than formerly, and with greater facility, and hopes to merit continued patronage. He now presents to the public an article new in its construction, for grinding corn and cob for feeding horses and stock. To those who approve this mode of feeding, this machine is worthy their attention. Also, Corn Shellers to be worked by hand or horse-power. He has a variety of Straw Cutters; but his own patented Cylindrical Straw Cutter is not surpassed by any other implement of the kind in existence; he has recently made some improvements in their construction, which adds to their cost, and for which he has been obliged to add a trifling advance on the price of the small size—his prices for them being as follows, viz:

11 inch Revolving bottoms \$30, with extra pair of knives,	\$33
11 " Permanent Bottom 28, do do do	31
13 " " " 43, do do do	48
13 " Revolving Bottom 45, do do do	50
15 " " " 50, do do do	56
20 " Large size fitted for horse-power 80, do do do	90

His variety of ploughs embraces almost every description and size that are worthy of notice, from a small seed Plough to the large rail road Plough—Gideon Davis' Improved Ploughs in all their variety, with cast and wrought shares; these castings are now made on his own premises, of the best stock and with special care; a supply of them always on hand to sell separate from the ploughs when required. Ox Scrapers for levelling hills, &c.; common and patent Wheat Fans; Fox & Borland's spring concave Thrashing Machines, large and small size, and portable horse powers for the latter; also one of Z. Booth's 2 horse Thrashing Machines and stationary horse power for the same; Brown's vertical patent Wool Spinners, and Watson's patent Washing Machine, both very simple and useful machines for families; Harrows; double and single corn and tobacco Cultivators; superior grain Cradles; and a great variety of other farming implements of a prime quality; and all on reasonable terms, at wholesale and retail.

Likewise in store—Orchard Grass, Timothy, and Herds Grass seed of superior quality.

JONATHAN S. EASTMAN.

CLAIRMONT NURSERY,

3 Miles East of Baltimore.

ROBERT SINCLAIR, Senr.



Proprietor, hereby informs his friends and the public that he expects the weather will be suitable to commence filling orders about the middle of the present month.

And owing to the winter setting in so unusually early, it is believed prevented many persons from ordering who intended to have done so, and even many orders that did come, had to remain unfilled until the spring, consequently his stock remains good for most articles as advertised last fall—particularly Apple, Peach, Plum, Quince, English Raspberry, Strawberry, Gooseberry, Currant, Grape Vines, three years old, and Cuttings of the same, a few hundred Morus Multicaulis, and other Mulberry Trees, Ornamental shade Trees, many kinds, and several of them of large size, Balsam Fir, or Balm of Gilead, and other evergreens, and a superb collection of Garden and China Roses, and other beautiful Flowering Shrubs, Honey Suckles, Vines and Creepers, Rhubarb for tarts, &c. See printed and priced catalogues, to be had of the proprietor, gratis, or of R. S. jr. in Light street.

Also will be delivered to customers, strong thrifty potted Plants; about the middle of May, a splendid assortment of double Dahlias, consisting of about one hundred varieties, carefully selected from among the best and latest importations. Printed catalogues will be furnished as above.

A few more pair white Turkeys, and 2 male Peacocks. feb 14

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 44.

BALTIMORE, MD. FEBRUARY 28, 1837.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, FEB. 28, 1837.

LEGISLATIVE PROTECTION TO AGRICULTURE.

We insert in another part of this day's journal, a very interesting report made in the legislature of Ohio, on the expediency of encouraging the culture of *Silk* and *Beet*. Though young in years, Ohio is a most powerful state; great in all those physical resources and local advantages, which tend to impart importance to her as a member of the union; the influence of her counsels in giving an impetus to those new branches of American husbandry, cannot, therefore, fail to be of infinite service in putting them upon a footing of solidity, which will place them beyond the reach of contingencies and plead for their encouragement with a force and fulfulness, that must find its way to the favor of the other legislative bodies of the confederacy.

While *Ohio*, in the West, the first of the new states, is nobly championing the cause of agriculture, we are gratified to find that *New Jersey*, one of the gallant old thirteen, who so generously aided in breaking the shackles of the mother country, in the war of the Revolution—whose sons during that period of dismay and peril, stood side by side with those of Maryland, and Delaware, in the deadly strife—is actively awake in furthering the good cause—and most sincerely do we join our aspirations with those of the editor of the *Bugle*, expressed in the paragraph below, in the hope, that Maryland will not be slow to follow the lead thus auspiciously set her by her ancient ally—nay, we will go further, and hope, that every other state, whose councils have not already done so, will come to the rescue, with a determination to vie with each other, in the holy rivalry, of doing their respective states the most service.

Culture of Silk and Sugar Beet—In glancing

over a New Jersey paper we accidentally noticed the following among the proceedings in the legislature of that state on the 7th inst. It evinces an enlightened policy, and sets an example which we hope Maryland will not be slow to follow.—*Kent Bugle*.

Mr. *Molleson*, after an interesting report in favor of encouraging the culture of *Silk*, and *Beet Sugar*, reported two bills in favor of the same, and 500 copies were ordered to be printed.

BUCKWHEAT STRAW.

In answer to a question put to us some time since, by "a young Farmer," whether "any use could be made of his buckwheat straw," we replied that it was better for his milch cows than the best timothy hay, that his cows would eat it with equal avidity; that if it had not been too long exposed to the vicissitudes of the weather, it would prove equally nutritious; that so far as the secretion of milk was concerned, it was infinitely preferable to any hay or fodder within our knowledge, and that if cut and boiled, it would make most excellent slop for his cows. In a conversation with a gentleman from Virginia a few days since, we were happy to find our own opinion and experience confirmed by an anecdote which he related. At the time of thrashing out his buckwheat, he was from home, and contrary to his usual practice, which was to cast the straw into the barn-yard amongst the other litter, his hands stacked it in a fold-yard, with his other hay and fodder, where it was accessible to a portion of his cattle. On his return home, he found that his stock had made as free use of the buckwheat straw, as with either his hay or fodder, thus establishing the fact that these animals, which should be admitted to be judges of what suits their own appetites, when left to their own choice, had by their selection of this hitherto neglected food, pointed out a new source of economy to the farmer and planter, which too many have not properly appreciated. Buckwheat, as every one knows, can be grown upon almost any soil if planted from the opening of the ground in spring, till the beginning of July, and will not only yield a handsome return of grain, but a full and wholesome supply of as good hay as any agriculturist ever fed his cattle withal.

"Adversity," to use a trite adage, "is the mother of invention," so should the experience of the last few years teach every one engaged in tilling the earth, to husband every means within his power, and of resorting to every resource within the compass of his ability, to make his stock comfortable, and keep them in a plentiful supply of food during the inclement months of winter. It is the custom of most farmers to sow buckwheat on the poorest spot on the farm, and even when thus treated, often without manure, with no other culture than a ploughing and harrowing, its product is from 20 to 30 bushels to the acre, according to the season. When placed under more advantageous circumstances, on good soil, or land properly manured, it has been known to give a product of from 60 to 70 bushels to the acre. If then, instead of sowing a small patch merely to afford meal enough for the winter supply of those delightful cakes, which add so much to the luxury of the farmer's winter breakfast table, he were to sow from 10 to 20 acres, how much of profit would enure to him? how much wholesome food would he secure for his cows? and how much solid comfort to all and every thing around him? Than buckwheat grain, nothing is eaten more readily by the poultry and the pigs. For the former, it is the best food in winter, largely contributing by the great proportion of lime of which it is composed, to make them lay; for the latter, or for breeding sows, if reduced to meal and boiled into slop, it is at once nourishing and fattening. For sows with young pigs, nothing is more conducive to the secretion of plentiful supplies of milk. And should the straw be cut and steamed, and thus given to milch-cows, it would serve as a substitute for other slops, and would materially increase the quantity as well as quality of their milk.

Besides the above uses of this article, if sown early, in the proportion of 2 bushels to the acre, it would bear mowing twice during the season, and would afford most excellent grass for soiling: and beyond all question, there is no green crops that can be turned in with the exception of a clover-ley, that makes so good a

dressing for ground for wheat as does buck-wheat.

When sown for the grain, from 1 to $1\frac{1}{2}$ bushel to the acre is enough seed.

N. YORK AGRICULTURAL CONVENTION.

The Albany Argus of the 20th instant, contains the proceedings of the State Agricultural Convention of New York, convened at Albany, the capital of that state, on the 2d instant. *Anthony Van Bergen*, Esq. of Greene county, was appointed president, four other gentlemen, vice presidents, and the same number, secretaries.

A series of resolutions were reported to the convention and unanimously adopted. We shall give an abstract of these with a view of shewing their tendency and character. They set forth:—

That it is of primary importance to all, that the great branch of agricultural labor should be specially encouraged and honored, and that the agriculturist should himself receive all those mental aids, and that stimulus to industry, which are calculated to make him more prosperous in his business, and more useful to society.

That we are particularly admonished by the scarcity and very high price of all the products of agriculture, to put forth our efforts to alleviate its labors and increase its productions;—That to the legislature of the state, as the constituted guardians of the public weal, particularly appertains the duty of fostering and improving this primary source of wealth and happiness:—

That from the experience of the past at home and abroad, the convention are confident, that the patronage of the government may be advantageously exerted, and without detriment to the financial operations of its treasury, to this great object.

1. By so raising the standard of instruction to the children of agriculture, as to enable them to understand, and to apply to productive labor, the best practices and improvements of the age; and

2. By imitating the successful examples furnished by other governments, of calling forth the skill, industry and competition of our citizens, by pecuniary reward and honorary distinction:—

That influenced by these views, the convention respectfully recommend to the legislature, to appropriate a permanent fund, the interest of which shall amount to at least THIRTY THOUSAND DOLLARS A YEAR, to encourage the establishment, and to sustain in usefulness, a Central and County Agricultural societies, and to promote generally, the interests of husbandry, under such regulations and restrictions, as to them shall

seem meet, and that provision be made by law for introducing into the common schools of New York, such books of elementary science, as may be best calculated to accelerate improvements in arts of productive labor.

A memorial, embracing the objects above specified, to the legislature, was also adopted with equal unanimity.

Among the other resolutions adopted by the convention, we find the following:

Resolved, That the exhibitions made to this convention, of silk fabrics and thread, made from the indigenous mulberry of our country, affords ample evidence that the silk culture is admirably adapted to our soil and climate, and that nature has bountifully supplied us, should foreign resources fail, with an excellent material for its prosecution.

The convention before adjourning recommended that another agricultural convention be convened in Albany on the first Thursday of February next, and that the several counties in the state take proper measures to be represented therein.

We notice these proceedings with feelings of unmingled pleasure, for every movement of the kind must serve to animate the breasts of the agriculturists of our land with the importance of attending to their own interests; for unless they do so, it must be obvious that no voluntary action will take place on the part of most of those who fill our legislative bodies.

POLICY OF DESTROYING WEEDS.

There is so much true philosophy, so much sound practical sense, in the following extract from one of Sir Humphrey Davy's lectures, that we cannot omit copying it.

"In all lands, whether arable or pasture, weeds of every description should be rooted out before the seed is ripe; and if they are suffered to remain in hedge rows, they should be cut when in flower, or before, and made into heaps for manure: in this case they will furnish more nutritive matter in their decomposition; and their increase by dispersion of seeds will be prevented. The farmer, who suffers weeds to remain till their ripe seed are shed, and scattered by the winds, is not only hostile to his own interests, but is likewise an enemy to the public: a few thistles will stock a whole farm; and by the light down which is attached to their seeds, they may be distributed over the whole country. Nature has provided such ample resources for the continuance of even the meanest vegetable tribes, that it is very difficult to ensure the destruction of such as are hostile to the agriculturist, even with every precaution; seeds excluded from the air, will remain for years inactive in the soil, and yet germinate under favorable circumstances; and the different plants, the seeds of which, like those of the thistle and dandelion, are furnished with beards or wings, may be brought from an

immense distance. The fleabane of Canada has only lately been found in Europe; and Linnaeus supposes that it has been transported from America by the light downy plumes with which the seed is provided.

EXPERIMENTS OF VARIOUS MANURES ON POTATOES.

The following extracts from "*Dickinson's Agriculture*," will shew that in Great Britain, particular attention has been given to salt as a manure. To shew its utility as a manure in a more clear point of view, the following experiments were made by the Rev. Mr. Cartwright.

A certain portion of soil (ferruginous sand brought to a due texture by a liberal covering of pond mud) was laid out in beds one yard wide and forty long: of these, 25 were manured, the first excepted, as follows:

No. of Beds.	Kind of Manure applied.	Product of Pota.
1	No manure.	157
2	Salt, $\frac{1}{2}$ peck	198
3	Lime, one bushel	150
4	Soot, one peck	192
5	Wood ashes, 2 pecks	187
6	Saw dust, 3 bushels	155
7	Malt dust, 2 pecks	184
8	Peat, three bushels	159
9	Decayed leaves, 3 bushels	175
10	Fresh dung, 3 bushels	192
11	Chandler's graves, 9 lbs.	220
12	Salt, lime	167
13	Salt, lime, sulphuric acid	175
14	Salt, lime, peat	183
15	Salt, lime, dung	199
16	Salt, lime, gypsum, peat	201
17	Salt, soot	240
18	Salt, wood ashes	217
19	Salt, saw dust	180
20	Salt, malt dust	189
21	Salt, peat	171
22	Salt, peat, bone dust	178
23	Salt, decayed leaves	187
24	Salt, peat ashes	185
25	Salt, Chandler's graves	195

"The quantity of ingredients the same as when used singly.

On the same day the whole was planted with potatoes a single row in each bed; and that the general experiment might be conducted with all possible accuracy, each bed received the same number of sets.

On the 21st of September, the potatoes were taken up, when the produce of each row was according to the annexed table.

It is observed as being remarkable, that of ten different manures, most of which are of known and acknowledged efficacy, salt, a manure hitherto of an ambiguous character, is superior to them all, one only excepted, and that when used in combination with other substances, it is only unsuccessfully applied in union with that one, namely, Chandler's graves, no other manure seemingly being injured by it: possibly its deteriorating ef-

fects on Chandler's graves may be owing to its antiseptic property, which retards the putrefactive process by which animal substances undergo the changes necessary to qualify them to become the food of plants. This, however, he cannot, from any appearances in the soil when the plants were taken up, assert to have been the case. The extraordinary effects of salt, when combined with soot, he thinks are strikingly singular: there is no reason to suppose these effects were produced by any known chemical agency of soot and salt on each other. Were he to guess at the producing cause, he should conjecture it to be that property of saline substances by which they attract moisture from the atmosphere; for he observed those beds where salt had been used were visibly and palpably moister than the rest, even for weeks after the salt had been applied, and this appearance continued until rain fell, when of course, the distinction ceased. This property of attracting moisture had greater influence possibly, on the soot than on any of the other manures, as soot from its acrid and dry nature may be supposed to require a greater proportion of water to dilute it, than those substances which contain water already. It may be proper to observe, that on those beds where salt had been used, the plants were obviously of a paler green than the rest, though not less luxuriant: a circumstance which he thought worth noticing, and which he considered, though erroneously (as appeared by the event,) to indicate a want of vigor, which would be felt by the crop. It was observable also, that where salt was applied, whether by itself or in combination, the roots were free from that scabbiness which oftentimes infects potatoes, and from which none of the other beds (and there were in the field nearly fifty more than what made part of these experiments) were altogether exempt."

BURNING SURFACE SOIL AND CLAY.

The following simple and cheap process of burning surface soil and clay, and thus adding to your quantity of calcareous manures and increasing your ability to improve your lands, is very strongly recommended by that eminent English agriculturist, Mr. Curwen. Those living remote from large cities, whence supplies of ashes are usually drawn, and in the neighborhood of lime regions, could in this way, at a very trifling expense obtain ample resources for top dressing their meadows, corn fields, grain fields, and greatly multiply their ability for raising turnips and root crops generally.

Mounds of seven yards in length, and three

and a half in breadth, are kindled with seventy-two bushels of lime. First a layer of dry sods or parings, on which one half of the lime is spread, mixing sods with it, then a covering of 8 inches of sods, on which the other half of the lime is spread, and covered a foot thick; the height of the mound being about a yard.

In 24 hours it will take fire. The lime should be immediately from the kiln. It is better to suffer it to ignite itself than to effect it by the operation of water. When the fire is fairly kindled, fresh sods must be applied. It is best to obtain a considerable quantity of ashes before any quantity of clay is put upon the mounds. The fire naturally rises to the top. It takes less time, and does more work to draw down the ashes from the top, and not to suffer it to rise above six feet. The lime is supposed to add full its worth to the quality of the ashes. Where limestone can be had it would be advisable to burn a small quantity in the mounds, as it would be a great improvement to the ashes, and at the same time help to keep the fire in.

METHOD OF BURNING LIME WITHOUT KILNS.

The practice of lime-burners in Wales was formerly to burn their lime in kilns, made broad and shallow, but lately they have begun to manufacture that article without any kilns at all.

They place the limestone in large bodies, the stones not being broken small, and calcine these heaps in the same way used for preparing charcoal. To prevent the flame from bursting out at the tops and sides of these heaps, turfs and earth are placed against them, and the aperture partially closed; the heat is thus regulated and transferred through the whole mass, and notwithstanding the increased size of the stones, the whole becomes thoroughly calcined. As a proof of the superior advantage that lime burnt in these clumps has over lime burnt in the old method, a preference is always given to that burned in heaps.—This practice also prevails in England and Scotland.

TANNERS' BARK.

There is much doubt and scepticism prevailing with respect to the relative value of this substance as an improver of the soil. While some contend that it is a cold, inert body, deprived, by the process of tanning of its nutritive properties, others object to it upon the score of its being too heating. Here are qualities ascribed to it as opposite as human opinion can make them; but as it is a

mong the infirmities of his nature for man to err in judgment, may it not be that neither of these opinions are correct. Prejudice too, may have its share of influence in the formation of them, and the truth may be found in the fact that their substance does not possess any one of the qualities here ascribed to it, in any injurious degree, but may in fact combine those which would render it, after being submitted to a judicious chemical process, a highly valuable manure. That the *tanning* principle is extracted no one can question; but in undergoing that deprivation, may it not imbibe other qualities equally conducive to the growth of vegetables? In the tanner's vat, it is placed in close contact with hides, and may it not receive certain portions of animal matter, eminently calculated to advance the healthful nurture of plants? While in the hands of the tanner, more or less of lime in some of its forms are doubtless imparted to it. This, we know, when combined with earthy matters, or hard woody, fibrous substances, promotes active decomposition, and consequently, the elimination of gaseous particles, which becoming incorporated with the soil, form a valuable part of the pabulum of living vegetables. We are told upon the highest authority that when lime, whether freshly burnt or slacked, is mixed with any moist, fibrous, vegetable matter, there is a strong action between the lime and the vegetable matter, and they form a kind of compost together, of which a part is usually soluble in water; and that by this kind of operation, lime renders matter which was before comparatively inert, nutritive. Now, may it not be, that all that is wanting to render tanners' bark easy of decomposition, and to convert it into nutritive matter, is the application of a proper portion of lime, or some other substance capable of generating heat? Fermentation once excited, i permitted to go on, would soon convert it into a black vegetable mould. In that state, all would admit its applicability for the production of the food of plants. Rotten tanners' bark mixed with silicious earth, we all know, makes one among the best preparations for the flower bed; indeed we know no mould superior to it; from many years experience we can say that we would prefer it to any other. If then, it was that inert body which some would represent it, it certainly could not gain any thing by its combination with silica to impart to it that principle of active vegetation which it undoubtedly possesses. But let us see what is taken from it in its process of tanning.—The best oak bark, cut at the most auspicious season of the year, contains but 29 parts of the tan-

nin principle out of 480 parts, and surely the abstraction of this minor portion of its whole constituent body, does not materially impair the capacity of the residuum for the purposes of production. But what has been found to be the constituents of this residuum? Why, by a minute analysis of 1,000 parts of dry oak bark, it was found to contain

Of woody fibre	876
Tannin	57
Extract	31
Mucilage	18

Matter rendered insoluble during evaporation, probably a mixture of Albumen and extract,

Loss—partly saline matter,

It must, therefore, be obvious from this exhibit, that after the separation of the TANNIN principle, there still remains much in the tanners' bark, which may be converted into vegetable nutriment, for of a thousand parts, only fifty-seven are found to combine with, and form a part of, the hides in the process of tanning. The substance abstracted, amounts to less than 6 per cent.; for as the analysis was made by incineration, the loss set down should not enter into the account against the residuum. Every one at all conversant with the constituent properties of manure, and with the physiology of plants, do know, that the substances which sustain the vitality of growing vegetables, must be taken up either in a liquid or gaseous form, and that the exquisitely delicate ducts of their lymphatic vessels cannot receive any thing solid into them. From these premises, it is fairly deducible that tanners' bark, once reduced to vegetable mould, would be a valuable and healthful manure; the process then, by which it can be reduced, becomes an object of importance, and it is equally so, that by admixture with earth and lime, with unrotted horse manure or ashes, its decomposition can speedily be effected. Would it not then, in the absence of other vegetable matter be a valuable substance to spread on all fields where lime was intended to be used, whereon no clover-ley or grass sward existed? It strikes us that it would be; and we recommend its use, from an honest conviction that the happiest meliorating effects would result from it. Deriving, as tanners' bark do, no little portion of animal matter during the period which it lies in contact with the hides, it may be said to possess both animal and vegetable salts, therefore, must be presumed to be highly forcing in its properties, and, hence, peculiarly adapted to tenacious soils, which may be, naturally, deficient in vegetable matter.

GEOLOGICAL SURVEY.

We have received a copy of the very interesting report of professor Rogers, on the progress of the geological survey of Virginia. No measure has ever been taken in this country, better calculated to develop the resources and riches of the soil, than the one authorising a thorough examination of its structure and component parts. The mineral resources of Virginia are believed to be very great, and now that science is turned to its investigation, we may expect them to be fully developed. It is already known that the beds of iron ore are inexhaustible. Salt is abundant, and those engaged in its preparation in this state, excel all others in skill. The professor says—

"Looking to the alum salt now made in Kenawha, and the table salt, Virginia has just cause to be proud of the pre-eminence she has attained in its branch of manufacture."—*

The report contains analyses of the various specimens of limestone found in the valley.—He considers the immense beds of limestone in this section as neglected treasures—and strongly recommends the use of lime to enrich the soil.† He says that the best lime for manure is made of the deep blue, almost black limestone, of a fine grain and rather smooth fracture, because it contains only a slight trace of carbonate of magnesia, which is pernicious.

[* There are other things of which the people of Virginia, may well be proud; we mean her inexhaustible and superior beds of Iron ore and coal. In conversing with an extensive dealer in Iron some weeks since, we were highly gratified to learn from him that the Catawba Pig Iron from that state was superior to any that came to this market, whether of foreign or domestic origin; that prior to its introduction into this market, the Scotch pig was preferred to all others; but now, that no one thought of purchasing it if the Catawba pig could be obtained; that its malleable and elastic properties combined, rendered it greatly superior to all others.

† We are pleased to find that the learned professor has recommended the use of lime, as, coming from so high a source, it cannot fail to make a deep and abiding impression upon the minds of those to whom it is addressed. Certain we are, that without the use of lime as an auxiliary to alimentary substances, impoverished grounds cannot be permanently resuscitated, and that, by its judicious use, the most infertile may be brought up, in a very few years, to a state of great productiveness.]

Beet Sugar—Specimens of sugar made from beet roots cultivated in England, we perceive, have recently been exhibited in the London sugar market, and a trial on a large scale was about to be made under the sanction of government.

REPORT

OF THE COMMITTEE ON AGRICULTURE OF THE OHIO LEGISLATURE.

PRESENTED BY MR. IHRIG.

The committee on Agriculture, to whom has been referred the petitions of many citizens of this State, praying for the favorable interposition of the Legislature to encourage the cultivation of Silk, have had the subject under consideration, and now ask leave to report:

In commencing their investigation, your committee were induced to enquire into the fact, whether Ohio possessed any Agricultural productions, which, strictly considered, could be regarded as staple commodities, the permanent and continued cultivation of which would lead her to wealth and prosperity. We find, on examination, that most countries of long established prosperity, have pursued the cultivation of some one leading article, which has led its inhabitants to affluence and superiority. China cultivates her tea crop and her silk worms; Java her rice and her spices; Asia Minor her olives; Turkey her opium; France and Italy their wines and silks; Spain her wool and indigo; Ireland her flax—Russia her hemp, and other countries of the Old World, those various commodities which seem to be best adapted to their soils and climates. In the New World, Mexico is already famous for her cochineal, the West India Islands for their sugars and their fruits, and in our own happy land many of these States are celebrated for their leading productions. Tobacco, cotton, coffee, hemp, and sugar, have already become staple commodities in our immediate vicinity. We are satisfied that the production of these articles tend to increase those leading articles of food, which are so essential to the support of a population, and of consequence, that those States are the most wealthy who have introduced them. They form a sound basis for commercial prosperity.—That Nation or State who can exchange the greatest quantity of her produce for the money or produce of other countries, is most sure of a dense and wealthy population, and it is perhaps wisely ordained by Providence, that while the productions of other countries, are made necessary to us for the full enjoyment of our comfort, those nations are in turn obliged to depend upon us for some articles equally essential to them.—In the mutual operation of supplying and of being supplied, lies the principle of commercial prosperity; and the greater the surplus produce to be exported from a country, the greater must be its wealth and prosperity. It therefore becomes necessary to seek out and to adopt some leading article, suited to the soil and climate, valuable in itself, easy of production, and proper alike for home and foreign consumption. Your committee are grateful that while this State is possessed of a mild and salubrious climate, and a fertile soil, it is surrounded by navigable waters, giving it immense commercial advantages; that it contains within itself almost unlimited sources of agricultural wealth; that there are very many of the boasted productions of foreign climes, which the hardy and virtuous yeomanry of Ohio may, by industry, produce from her genial soil; and they trust that the time is rapidly advancing when their favorite State will no longer

ger depend upon foreign countries for many of these commodities. They have, however, looked in vain, through this State, for any great lead in staple of production, other than those which are intended for food, and in the production of these articles, they cannot observe that Ohio possesses advantages either of soil or climate, which will, in future time, render her eminently superior to her neighbors, but they believe that the time has now arrived when many of her citizens, if properly and prudently supported by the Legislature, may be induced to commence operations which will permanently establish some of them within your borders. The culture of Silk and of the Sugar Beet, which are the sources of national wealth in other countries, it is believed, may be successfully and profitably pursued here. Our soil has been found to be peculiarly adapted to the mulberry in all its varieties, and the silk worm, wherever it has been fed among us, has always produced an article equal to the produce of other lands. We consider it as settled that we may produce silk in any reasonable quantities and of good quality, without interfering with any other of the branches of domestic industry. The labor requisite to make the crop is of that character which has of late become least available in our country from the rapid introduction of machinery; and we are satisfied that it is not the least pleasing and valuable feature of this business that it may be attended to entirely by the females, children, and infirm persons of the State, while the farmer and his able bodied laborers are attending to their ordinary avocations, and that thus while all are enabled to do something towards the general welfare, each one is laying up for himself a comfortable independence.

Your committee are satisfied that this article, when produced in large quantities among us, as it must sometime be, will always find a ready and profitable market. The consumption of silk annually, is astonishing, and without enquiring as to the enormous quantities consumed in foreign countries, we think it only necessary to state, that the importations of manufactured silk goods into this country during the year 1835, exceeded the sum of \$17,800,000, while the raw silk prepared for the manufacture, and which was the subject of trade to our merchants, was imported to the value of \$10,000,000. This amount, which is annually increasing, is taken from our country either in money or in produce, and might as readily be kept at home, if we should raise and manufacture our own articles. In addition to this domestic market, Europe offers a field of no mean importance. Great Britain, Russia, and the other northern powers, from the determined inhospitality of their climates, can produce no silk. England alone manufactures more than \$30,000,000 worth of raw silk raised in foreign countries, and it is stated on good authority, that more than 400,000 of her citizens derive their support from this source. Even France, which is perhaps the greatest silk producing district of the world, requires aid from foreign countries in the supply of the raw material to an amount exceeding \$5,000,000 annually. It is found that the consumption of this valuable commodity is increasing every where, as well as in the United States, and it is stated that France, with her immense manufac-

turing capital and power, is unable to meet the demand of our market alone for the current year.

Your committee have been induced to enquire whether the citizens of these Western States, and of Ohio in particular, are able to compete to advantage in the markets of the Eastern or Atlantic cities, with Eastern Agriculturists in the articles which they now raise. They are disposed to take it for granted, that the surplus productions of the West must, in time, seek a market in the East; and they look upon the construction of Canals and Rail Roads, by Eastern capitalists, as a step to secure this golden prize. It is an unquestionable fact that much of our land is more fertile than that of the East, and of consequence that our crops are more abundant, yielding a greater return for the labor expended.—But yet the articles produced are of considerable bulk and weight, and to convey them to the East, with all the advantages of Rail-roads and Steamboats, must ever be attended with a burdensome expense, amounting almost to a prohibition of many of the most important of them. The eastern farmer with his market at hand can thus immediately convert his crop into money, and his inhospitable soil is, in fact, made to yield him a greater profit, although a smaller crop, than can be realized by the western farmer. We are, however, satisfied that the farmers of this State can introduce crops, which are of themselves intrinsically valuable, small in bulk and easy of transportation, on which the freight would be an unimportant item; and that then the farmer of Ohio, with his more fertile soil and greater crop, may compete successfully with the eastern agriculturist. In this view they regard the culture of silk as eminently entitled to consideration—affording, as it does, a crop of great intrinsic value and of easy conveyance. The expense of transporting flour to New York is one cent per pound, while the expense of conveying silk would be the same, the value of the one being diminished twelve and a half per cent. by transportation, the other one-fourth per cent. in consequence of the great difference in their intrinsic value. In this view of the case, which we deem of much importance, the introduction of the silk culture is eminently worthy of consideration.

We are also of opinion that the introduction of this crop would be further beneficial to the community by calling into operation, within our borders, capital for manufacturing purposes now seeking investment in other places. And that very considerable numbers of our population would thus find permanent and profitable employment.

We find that in several States of the Union, this subject has been considered of so much importance as to receive the favorable interposition of several Legislatures; and that such aid has always resulted beneficially to those States, while it has been an incentive to those engaged in the business. Your committee having in view the large number of petitions which are before them, and the very respectable list of signatures to these petitions, have been at a loss how to extend to this business any encouragement, except by proposing to the Legislature a bill, offering to those engaging in the business, a small premium or bounty for a limited time; and this they do

the more willingly as they are satisfied of the justice and propriety of the course, and because they find before them the example of other States in which this system has become a fixed and determined policy. They are also induced to do so because they find that investments in the silk culture, unlike most other kinds of agricultural business, cannot be made to yield an immediate return. Orchards must be planted, proper buildings erected, and other preliminaries attended to, necessarily requiring some few years of time before any adequate return can be anticipated, and recommended by your committee, as a small compensation to those who are willing thus to invest their means.

In view of the foregoing facts and reasons, your committee ask leave to report the accompanying bill.

SEVEN REASONS

WHY AGRICULTURE SHOULD RECEIVE THE PATRONAGE OF GOVERNMENT.

1. *Agriculture feeds all.* Were agriculture to be neglected, population would diminish, because the necessities of life would be wanting. Did it not supply more than is necessary for its own wants, every other art would not only be at a stand, but every science, and every kind of mental improvement, would be neglected. Manufactures and commerce originally owed their existence to agriculture. Agriculture furnishes, in a great measure, raw materials and subsistence for the one, and commodities for barter and exchange for the other. In proportion as those raw materials and commodities are multiplied, by the intelligence and industry of the farmer, and the consequent improvement of the soil, in the same proportion are manufactures and commerce benefitted—not only in being furnished with more abundant supply, but in the increased demand for their fabrics and merchandize. The more agriculture produces, the more she sells—the more she buys; and the business and comfort of society are mainly influenced and controlled by the result of her labors.

2. *Agriculture, directly or indirectly, pays the burthens of our taxes and our tolls,*—which support the government, and sustain our internal improvements; and the more abundant her means, the greater will be her contributions. The farmer who manages his business ignorantly and slothfully, and who produces from it only just enough for the subsistence of his family, pays no tolls on the transit of his produce, and but a small tax upon the nominal value of his lands.—Instruct his mind, and awaken him to industry, by the hope of distinction and reward, so that he triples the products of his labor, the value of his lands is increased in a corresponding ratio, his comforts are multiplied, his mind disenthralled, and two thirds of his products go to augment the business and tolls of our canals and roads. If such a change in the situation of one farm, would add one hundred dollars to the wealth, and one dollar to the tolls of the state, what an astonishing aggregate would be produced, both in capital and in revenue, by a similar improvement upon 250,000 farms, the assumed number in the state. The capital would be augmented two millions, and the revenue two hundred and fifty thousand dollars per annum.

3. *Agriculture is the principal source of our wealth.* It furnishes more productive labor, the legitimate source of wealth, than all the other employments in society combined. The more it is enlightened by science, the more abundant will be its products; the more elevated its character, the stronger the incitements to pursue it.—Whatever, therefore, tends to enlighten and increase its labors, must proportionably increase the wealth of the state, and the means for the successful prosecution of the other arts, and the sciences, now indispensable to their profitable management.

4. *Agriculturists are the guardians of our freedom.* They are the fountains of political power. If the fountains become impure, the stream will be defiled. If the agriculturist is slothful, and ignorant, and poor, he will be spiritless, dependent and servile. If he is enlightened, industrious and in prosperous circumstances, he will be independent in mind, jealous of his rights, and watchful for the public good. His welfare is identified with the welfare of the state.—He is virtually fixed to the soil; and has, therefore, a paramount interest, as well as a giant power, to defend it from the encroachments of foreign or domestic foes. If his country suffers he must suffer; if she prospers, he too may expect to prosper. Hence whatever tends to improve the intellectual condition, of the farmer, and to elevate him above venal temptation, essentially contributes to the good order of society at large, and to the perpetuity of our country's freedom.

5. *Agriculture is the parent of physical and moral health to the state*—it is the salt which preserves us from moral corruption. Not only are her labors useful in administering to the wants, and in dispensing the blessings of abundance to others, but she is constantly exercising a salutary influence upon the moral and physical health of the state, and in perpetuating the republican habits and good order of society. While rural labor is the great source of physical health and constitutional vigor to our population, it interposes the most formidable barrier to the demoralizing influence of luxury and vice.—We seldom hear of civil commotions, of crimes, or of hereditary disease, among those who are steadily engaged in the labors of agriculture. Men who are satisfied with the certain and abundant resources of their own labor and their own farms, are not willing to jeopard their enjoyments, by promoting popular tumult, or tolerating crime. The more we promote the influence of the agriculturist, by developing the powers of his mind, and elevating his moral views, the more we shall promote the virtue and happiness of society.

6. *Legislative patronage will increase the products of agriculture*, and consequently advance the prosperity, promote the moral improvement, and elevate the character of the state. Look at the disparity, in the products and profits of labor, on the well managed and ill managed farm—or in the well cultivated and ill cultivated district. The one, we say, nets a profit of twelve or fourteen per cent per annum, or the nominal value of the land,—the other but two or three per cent—and abundant examples may be furnished of both extremes. The rural improvement of a country indicates, pretty correctly, besides, the intellectual and moral condition of its

population. Now if by raising the standard of public instruction, by holding out rewards to successful competitors in improvement, and by establishing schools of practical and scientific agriculture, all of which come within the purview of legislative duties, we could render all our improved lands as productive as those of a like quality, which are well managed, our agricultural products would be quintupled. This we do not expect; but after making due allowance for all drawbacks, it must be apparent to every reflecting mind, that the advantages to the state, from a judicious application of a portion of public money to promote agricultural improvement, would be manifestly great. We have seen, from a combination of local cause, and in a short period, the agriculture of old settled counties, doubled and trebled. General causes, operating upon the whole state, cannot fail of producing results alike favorable.

7. *Agriculture is entitled to special patronage, as a matter of EQUAL JUSTICE, as well as from considerations of sound policy*—because she has had nothing special, while other classes have had much. She shares, in common with all in the advantages of common schools, and public improvements, and she did receive, in 1817, a pittance, a special pittance, which she has refunded to the treasury, in the form of revenue, with compound interest. The state may be likened to a large family of boys. Five sixths of these have charge of the farm; others are taught trades and handicrafts; and to those two classes is confided the task of providing for the wants of the family. But, as a necessary appendage to a large family, one son is set apart as a doctor, another as a minister, and a third as a lawyer; and to qualify these the better for their respective duties, it is agreed that a portion of the family funds shall be applied to the establishment and maintenance of a school, for their exclusive benefit. Thus while the farmers and mechanics are getting their trades, by labor, in the field and in the shop, the doctor, the parson and the lawyer are getting their professions in the public school. By and by the working boys discover, that, owing to the rapid improvements of the age, school knowledge is as advantageous to the trades as it is to the professions; that there have been great improvements made abroad in their several arts of labor, and that without a knowledge of these improvements, and of the laws upon which they are based, they cannot successfully compete with their better instructed neighbors. Feeling themselves entitled to the same favor that has been shown to the doctor the parson and the lawyer,—desirous of acquiring this useful knowledge in their business so necessary to the common interest of the family, and influenced by laudable pride to become in fact, what they are in name, on a footing of equality with their already learned brethren,—the working boys now ask the family, to establish for them a school, adapted to their employment, now that the affairs of the family are prosperous. We cannot, say they, acquire the desired knowledge in the doctor's school, because it is not taught there; and because, were it taught, we cannot be spared from the farm and shop to go after it. We want a school in which we can practice our hands to useful labor, gain instruction in the principles of our business, and at the

same time qualify ourselves for the higher duties of social and public life. Is there any thing unreasonable in this request? Or is there aught in it which a wise and prudent family would not grant with alacrity?

The state has expended about three millions of dollars towards qualifying the doctor, the divine, the lawyer, and the gentleman, to discharge their several duties in society, from which the farmer and mechanic can derive but partial, if any, direct advantage. The plainest principles of justice, which accede to all classes an equal participation in the favors of a free government, as well as provident foresight, require alike some special provision for those who live by the sweat of the brow.

We affect to be above the people of the old continent in all our social and political privileges. To sustain this superiority, we should be above them, too, in our intellectual and moral improvements. But we are not. We are superficial in too many things. We mistake the name, too often, for the substance. We are satisfied with sowing a few seeds at random, upon superficial tillage, leaving the after culture to chance; and the consequence is, weeds spring up with luxuriance, and often smother and destroy the plants of usefulness. We have but begun in cultivating the mind, the great lever to the arts, and the refiner of human enjoyments. We do not go far enough to ensure the harvest. In many portions of Europe, the mind is brought into early discipline, carefully prepared, and sown with those seeds which promise the best return to the individual and to the community. Take Prussia for an illustration of this remark. There the government provides seven years instruction for every child in the kingdom, at the public charge when the parent is unable to defray it. And what branches of instruction are there taught? Not merely those elementary studies, as reading, writing and the preliminary rules of arithmetic, which constitute the main studies in our common schools—but the sciences which instruct and dignify the useful arts—chemistry, geology, botany, &c.—geography, history, geometry, drawing and music; the mechanic arts and agriculture. Nor does the Prussian government stop here: It provides the schools with the means of teaching this knowledge efficiently. And the primary, or common schools, are not only provided with books and other ordinary matters, but with a collection of maps and geographical instruments, models of drawing, writing, music, &c., with instruments and collections necessary for studying natural history, and, according to the extent of the system of instruction, with the apparatus necessary for gymnastic exercises, and tools suited to teach the mechanic arts or manufactures in the school. She also attaches to every school in a village, or small town, a kitchen or orchard garden, which is made available for the instruction of the scholars; and to her normal schools, or schools for the education of teachers, a farm, for practical instructions in agriculture. Dr. Channing, in speaking of the Prussian system of instruction, says it is adapted to a monarchy—to bring the minds of subjects in quiet subjection to the will of the sovereign. So far as we have sketched its feature, it seems as well adapted to a republic as a monarchy. If a king finds it for

his interest thus to have all his subjects instructed in the higher, or at least most useful branches of knowledge, of how much greater importance is it, that those who are themselves to share in the sovereignty, to make and execute laws, should have their minds early imbued with useful knowledge. In giving these outlines of common school education in Prussia, we have, with trifling variation, the system in operation in Wurtemberg, Bavaria, and other German states, and which is now being adopted in the French empire. The education of the great body of the people, with the view of implanting good habits, and fitting them, in school, for the various and important pursuits of life, is an improvement of modern times, and one of great moment in a moral and national point of view. It is particularly adapted to the welfare of a free people.

We want schools of science and practice, where the principles and the practice of the useful arts may be simultaneously taught, and the physical and intellectual powers of our youth fully developed in aid of each other. We want in our common schools, a higher grade of studies, as a necessary foundation for increasing the knowledge and usefulness of our people. We want those stimulants to the development of mind, the germination of latent skill, and the practice of useful industry, which are the sure preludes of national prosperity and greatness. We want, particularly, a school of scientific and practical agriculture, as matter of experiment first; and should it prosper as we think it will, we shall hereafter want other like schools. We have seen the agriculture of England more than doubled in its products, under the vivifying influence of an efficient board of agriculture, patronized and sustained by the government. We have seen Scotland increasing, three or four fold, the productions of her soil, under the active and salutary influence of the very liberal premiums, which have annually for fifty years, been distributed by her agricultural society. We see France, growing wise from the example of her neighbors, establishing national farms, and sustaining her agricultural societies by appropriations from her treasury; and we see the speedy and happy effects of this patronage, in the new impetus which has been given to the beet culture, and to improvements in her agriculture generally. We have seen our sister Massachusetts sustaining her agricultural societies by liberal annual appropriations from her treasury; and when the law making these appropriations had expired, we have seen her renewing it, thus affording the strongest evidence of its wisdom and utility. We wish it was in our power to add, that New-York, great as she is in territory, in population, in resources and enterprise, had done something great, or generous, or just, to promote the improvement of her agriculture, the great business of her population. We hope the opportunity will be afforded for some one to do it hereafter.

The means which come legitimately within the purview of legislative duties, for promoting improvements in the productive arts of labor, are,—the dissemination, through our common schools, of the elementary principles of natural science, now become indispensable to the successful prosecution of the useful arts;—the patronizing of

schools which shall simultaneously teach, practically, at least the great business of agriculture, and the science, which serve to illustrate, enlighten, and render it more useful and profitable to the state;—to disseminate, through common school libraries, standard works upon husbandry and other common arts of labor; and to encourage the formation of county and local associations of farmers, with the view of calling into useful action, by pecuniary and honorary rewards, the latent energies of our rural population.

"The arts," says Sir John Herschell, "cannot be perfected, till their whole process are laid open, and their language simplified and rendered universally intelligible. Art is the application of knowledge to a practical end. If the knowledge be merely accumulated experience, the art is, *empirical*; but if it be experience reasoned upon and brought under general principles, it assumes a higher character, and becomes a *scientific art*. In the progress of mankind from barbarism to civilized life, the arts necessarily precede science. Application comes later; the arts continue slowly progressive, but their realm remains separated from that of science by a wide gulf, which can only be a powerful spring. They form their own language, and their own conventions, which none but artists can understand.—The whole tendency of empirical art is to bury itself in technicalities, and to place its pride in particular short cuts and mysteries known to adepts; to surprise and astonish by results, but conceal processes. The character of science is the direct contrary. It delights to lay itself open to inquiry; and is not satisfied with its conclusions till it can make the road to them broad and beaten: and in its applications it preserves the same character; its whole aim being to strip away all technical mystery, to illuminate every dark recess, and to gain free access to all processes, with a view to improve them on rational principles."

The measures we have proposed are not untried experiments, or of doubtful tendency. They have been adopted by governments which we are taught to consider less friendly to, and less interested in, the general diffusion of knowledge, than our own, and the results have justified the experiment. The British government has caused agricultural surveys to be made of every county in the kingdom, and published these surveys, comprising fifty or sixty volumes, for the benefit of her agriculture. The French government has had collected and published, under the supervision of her minister of the interior, the agricultural works of her most enlightened citizens.—She is now, through her central agricultural society, giving a new and remarkable impetus to improvement in her agricultural labors. As an evidence of her zeal and liberality, and of her wisdom in calling forth useful competition, we are able to state, from documents in our possession, that she has offered to her farmers, for improvements in the beet culture, and in the domestic fabrication of sugar, alone, bounties to the amount of seven or eight thousand francs, or one thousand to fifteen hundred dollars. These premiums are to be awarded the coming spring.—The effect of the competition which these bounties to skill and industry are calculated to excite,

cannot fail to be greatly beneficial and abiding.—She has in a few years increased the products of sugar from her soil to 80,000,000 pounds; while her arable and stock husbandry have been immensely benefitted by the extension of her beet culture; and she is likely successfully to compete, ere long, in our own grain markets.

The scramble for political power having for at least a time abated, and our means of improvement being now ample, the hope has been fondly, though perhaps vainly indulged, that considerations like those we have suggested, would press upon the notice of our statesmen, and induce them to adopt such efficient measures for improving the arts of productive labor, as should command the generous applause of the age, and live in the grateful recollections of posterity.

However apt we may be, in our fervor or frenzy to subserve the interests of *self* or *party*, to forget the obligation—we owe duties to our country—to our *whole* country—and to our God; for the performance of which we *must* be amenable—which are paramount to all others; and the faithful performance of which, while it imparts to life its purest enjoyments, affords the only safe hope of a happy immortality. The evil we do, benefits but for a time; the good we do, benefits for time and eternity. *Cultivator.*

TENNESSEE SILK.

We have been furnished with several pieces of silk grown and manufactured by Miss EASTERLY of Cocke county in this State. This young lady merits no small share of applause for her ingenuity, perseverance and industry in thus furnishing to the country demonstrative proof of the superior adaptation of East Tennessee to the silk culture, a branch of business which, we have no doubt, is destined, at no distant period, to be ranked amongst our most profitable employments, and to confer on the country, and especially on the laboring class of females, incalculable benefits. The specimens of silk left with us are, we believe, the produce of the wild mulberry, reeled, spun and woven by Miss Easterly on the implements in common use, for cloth of other materials, yet notwithstanding these great disadvantages, they are highly creditable to the ingenuity and industry of the fair manufacturer, and prove conclusively, that under more favorable circumstances, she would be amply able to compete with the foreign manufacturer both in the beauty, strength and texture of the products of the loom. We are happy to learn that a zeal for the extension of the silk culture is rapidly diffusing itself throughout East Tennessee, authorising a well-founded belief that in less than five years the product of East Tennessee silk will form an item in the list of her productions by no means inconsiderable. In addition to some public-spirited individuals who, from motives of patriotism and of philanthropy, are extensively engaged in the cultivation of the White and Chinese Mulberries, we hear of a great number of individuals who are engaged in the same business on a smaller scale, solely with a view to individual profit. All have our best wishes for their complete success, to which we shall endeavor to render the Farmer a useful auxiliary.—*Tennessee Farmer.*

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel	92	95
White,.....	"	90	92
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR&MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 37	10 37 1/2
SuperHow. st. in good de'd	"	10 37	10 73 1/2
" " wagon price,.....	"	10	10 25
City Mills, super,.....	"	10 00	10 25
Do extra,.....	"	10 25	10 50
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
Hogs, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
Hops—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	62	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100lbs	3 50	4 50
" brown and red,....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappry, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,....	"	6 00	8 00
" good yellow,....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 30
Red, best,.....	"	2 20	2 25
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do,.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

PLACE WANTED AS OVERSEER.

A young, industrious, and enterprising man, who is a good farmer and understands the management of hands, wants a situation in the above capacity. Any person wishing to employ such a person will please address a letter to Elie Plummer, Chestertown, Md. no 15 2t

BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	2
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,.....par	VIRGINIA.
Branch at Baltimore,.....do	Farmers Bank of Virginia	1
Other Branches,.....do	Bank of Virginia,.....	2a1
MARYLAND.	Branch at Fredericksburg do	—
Banks in Baltimore,.....par	Petersburg,.....do	—
Hagerstown,.....do	Norfolk,.....do	—
Frederick,.....do	Winchester,.....do	—
Westminster,.....do	Lynchburg,.....do	—
Farmers' Bank of Mary'd, do	Danville,.....do	—
Do. payable at Easton,....	Bank of the Valley,....	1
Salisbury,.... 5 per ct. dis.	Branch at Romney,....	1
Cumberland,.....1	Do. Charlestown,....do	—
Millington,.....do	Do. Leesburg,....1	—
DISTRICT.	Wheeling Banks,....	2a3 1/2
Washington, } Banks, 1/2.	Ohio Banks, generally	3a3 1/2
Georgetown, } Banks, 1/2.	New Jersey Banks gen.	1 1/2a2
Alexandria, } Banks, 1/2.	New York City,....	1a
PENNSYLVANIA.	New York State,....	2 1/2a3
Philadelphia,.....1a	Massachusetts,....	2a2 1/2
Chambersburg,.....1	Connecticut,....	2a2 1/2
Gettysburg,.....do	New Hampshire,....	2a2 1/2
Pittsburg,.....2a2 1/2	Maine,.....	2a2 1/2
York,.....1a	Rhode Island,....	2a2 1/2
Other Pennsylvania Bks. 1 1/2a2	North Carolina,....	3 1/2a4
Delaware [under \$5]....3a4	South Carolina,....	3 1/2a4
Do. [over 5]....1a 1/2	Georgia,.....	3 1/2a4
Michigan Banks,.....6a	New Orleans,.....	6
Canadian do.....6a		

GARDEN SEED.

The subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

Feb. 14

JONATHAN S. EASTMAN.

AN AYRSHIRE BULL FOR SALE.

A Bull of the above breed, of well attested pedigree, is now on sale by the editor of this paper. Letters on the subject must be post-paid. oc4

CONTENTS OF THIS NUMBER.

Legislative protection to agriculture—value of Buckwheat straw—abstract of the New York Convention in favor of Agricultural encouragement—policy of destroying Weeds—experiments of various manures on Potatoes—Burning surface soil and clay—do. of burning limestone without kilns—virtues of tan as a manure—Geological survey of Virginia and her mineral resources—report of the Ohio legislature in favor of the silk and beet culture—seven reasons in favor of Agriculture receiving the encouragement of government—Tennessee silk—advertisements—prices current.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$190
Do. exclusive of the wheels, shafts and axle,	60
For applying the machinery to a common cart	45
For the machinery alone	40
Including the patent fee in each case	fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order. SE' H WHALEN, P. M. Feb. 1837—28 Whalen's store, New York.

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK, Agricultural Agent, No. 5 South Fifth street, Philadelphia. feb 28—4t

CLAIRMONT NURSERY,

3 Miles East of Baltimore.

ROBERT SINCLAIR, Senr.



Proprietor, hereby informs his friends and the public that he expects the weather will be suitable to commence filling orders about the middle of the present month.

And owing to the winter setting in so unusually early, it is believed prevented many persons from ordering who intended to have done so, and even many orders that did come, had to remain unfilled until the spring, consequently his stock remains good for most articles as advertised last fall—particularly Apple, Peach, Plum, Quince, English Raspberry, Strawberry, Gooseberry, Currant, Grape Vines, three years old, and Cuttings of the same, a few hundred Morus Multicaulis, and other Mulberry Trees, Ornamental shade Trees, many kinds, and several of them of large size, Balsam Fir, or Balm of Gilead, and other evergreens, and a superb collection of Garden and China Roses, and other beautiful Flowering Shrubs, Honey Suckles, Vines and Creepers, Rhubarb for tarts, &c. See printed and priced catalogues, to be had of the proprietor, gratis, or of R. S. jr. in Light street.

Also will be delivered to customers, strong thrifty potted Plants; about the middle of May, a splendid assortment of double Dahlias, consisting of about one hundred varieties, carefully selected from among the best and latest importations. Printed catalogues will be furnished as above.

A few more pair white Turkeys, and 2 male Pea cocks. feb 14

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 45.

BALTIMORE, MD. MARCH 7, 1837.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MARCH 7, 1837.

PROVENDER OF THE SOUTH.

In looking over the *Charleston Mercury*, some days since, we were very sensibly struck by two facts contained therein. Under the shipping list head, we saw the arrival of a ship announced from Havre, France, with several thousand bales of Hay on board, and in the prices current, we noticed the price of hay set down at \$2½ per hundred. It seems to us that the necessity for importing hay, from any quarter, should not exist in an agricultural community so enlightened as that of South Carolina, nor should the price of an article of such necessary consumption as it is, be so exorbitantly high. We have seen it stated that many of the artificial grasses, owing to the intensity of the summer's heat, do not thrive in that region. However this may be, we think by proper attention to the subject, that much of this difficulty might be obviated. In our climate, the experience of agriculturists justify the opinion, that clover requires the protection of shade the first season, and hence it is that it is sown either with oats, or barley, on winter grain in the spring, or in the corn-fields in the summer. Now, if shade is so essential to the preservation of this grass in this quarter, would it not be an easy matter to find a substitute in oats, for the wheat, rye and barley farther south, where the temperature is so much more intense. This practice might be introduced, where a crop of that grain was not an object. A half bushel of oats to the acre, sown over a clover field in the spring, and again at midsummer, would afford all necessary protection of shade, which that grass would require; the first body of oats straw would add to the quantity, and improve the quality of the clover hay, while the second would shield it from

the injurious effects of the rays of the summer's sun, and dying and falling on the soil in winter, would tend to meliorate its condition, and add to the growth and luxuriance of the clover the ensuing spring.

Timothy, it appears to us, if sown in that region in September, would flourish and prove a valuable acquisition to the planters, and should it require protection from the sun the following season, it could find it in the oats, sown as we have described above.

The Orchard grass, though it makes a light hay, is a most excellent provender for cattle, and when mixed with clover and the tall meadow oats, would, we feel assured, stand well through the most scorching period to which it would be subjected in a Carolina sky.

The *Guinea grass* too, would be found a valuable acquisition there; native as it is of a hot climate, its transition from Jamaica, where it has become acclimated, to South Carolina, would be but to translate it from one genial climate to another; however, we are aware that its culture would be no novelty, as it was grown there many years since, and we doubt not, is to be found there yet, in the possession of some of her patriotic and intelligent sons. The late Mr. H. Laurens, did at one time cultivate it successfully, and if we recollect aright, wrote strongly in its commendation.

It is, as every one acquainted with it must know, a most productive grass; might be cut four or five times in a season, and would doubtless yield ten tons of hay to the acre, per annum.

But why should South Carolinians pay \$2½ per hundred for hay, or import it from France, or any where else, when they have such an ample resource, in the *Gama grass*. This luxuriant and productive grass is a native of the south; for it has been found from Virginia to the Mississippi, and if it be only entitled to a tithe of the credit awarded to it, is eminently worthy of southern culture. Several distinguished gentlemen have tested its value by actual cultivation, and all who have done so, speak of it in terms of the most decided approbation. Among them we would mention Dr. Magoffin, of Alabama, who gave to

its culture all that zeal and intelligence could require, and who satisfactorily proved that it might be cut every thirty days, from May until frost, and that upwards of 64 tons of hay could be raised on an acre in one year. This great product cannot be expected to be realized unless much labor and the best cultivation be given to it; but if it would yield the half or third of this, would it not be entitled to every possible attention that could be bestowed upon it?—This grass is already cultivated in South Carolina, and if only a few acres on each plantation were devoted to its growth, we venture the assertion that no necessity for importations of hay would exist there three years from the present time, nor would the exorbitant price of hay longer operate as a tax upon other productions.

WORK FOR MARCH.

ON THE FARM.

The spring opened upon us on Wednesday last, with an aspect full of threatening: the morning was cloudy, the wind from the north-east, and though not high, it blew shrewdly and coldly. The lowering terminated for the day by a slight, coyish spitting of snow, when the atmosphere cleared up a little, though still charged with an eager air. Thursday morning was the fellow of its successor, with this exception—it only threatened, until past meridian—but its forbearance was of fleeting duration, merely while it could gather up its resources, and develope its strength; for by half past 3 o'clock, it commenced snowing in earnest, which continued nearly throughout the night, and even now, Friday morning, while I am writing this, its flakes are descending. Thus has the three first days of March given us quite a respectable snow, being we think, fully two inches deep. If, however, there be any virtue in the old and oft repeated adage, we may derive consolation even from this cheerless and austere commencement, in the hope that it may be succeeded by a season of mildness; for it is not those who are most boisterous in the onset, that possess that power of forbearance—that capacity to endure peril and encounter danger, which render them formidable enemies. We have seen in our day ma-

ny a fellow,—who from his noise might be taken for a very Sampson in prowess—whose hoarse and dissonant denunciations sounded more like the roaring of a *lion*, than the articulations of the human voice—compelled by the stern rebuke of a cool, firm, and determined opponent, to lower his notes until they resembled the plaintive moans of a sick *lamb*. But whether the moral of the adage be realized in the present instance or not, it is most certain, that during the brief career of March, *much, very much*, must be accomplished by the agriculturist if he desires to reap a harvest that will reward his toils, gratify his ambition, or entitle him to be esteemed an exemplar for his neighbors. In the operations of farming, as in every other business, to *begin right*, is one-half the battle; therefore, every one who would wish to see his exertions crowned with success, should lose no time in placing himself in a position to deserve it. Let all then, with integrity of purpose, and unflinching determination, resolve to leave nothing to be performed tomorrow, which can be done to-day, but rather seek to be in advance of time, and trust not to contingencies, which at best are but deceptive, serving only to mar the hopes of the sanguine, and disappoint the calculations of the more sedate and reflecting. We speak feelingly upon this subject, having, in our small way, suffered by delays which our judgment told us were wrong, but which from necessity we were compelled to endure; for however well appointed in laborers one may be, it is oft as difficult to infuse into those around you that *moral* feeling which should influence the employed, to act for the employer, as for themselves, as it would be by an invocation to bring “spirits from the vasty deep.” By the bye, though it is not exactly the work of March, yet as we have been forced into this train of thinking, we might as well speak out at once;—for though prudence might dictate silence on a subject, rendered delicate by circumstances, it is not the less true, that most of the hands which one hires, care more about *killing time*, than acting honestly by their employers. A sturdy fellow with a pair of shoulders as broad as *Cyclops*, arms sinewy and muscular as those of *Vulcan*, will think no more of eating your bread and meat, and idling away his time, than if your object in employing him was really to afford him an opportunity to pick your pocket. We have before us several letters from correspondents complaining of the utter worthlessness of a large portion of hiring farm hands, and asking us whether there be no remedy for the evil? Our experience is too limited to prescribe

for a *disease*, if we may so term it, so widely spread, and so *contagious*; we believe it would be a subject worthy of a premium: but until the *panacea* shall have been discovered, we think that neighborhoods would find it to their interest, as it certainly is their duty, to put every *faithless laborer* under the ban of proscription: let him who defrauds his employer out of a portion of his labor, be forthwith discharged and proclaimed by communication from one neighbor to another, as an idler and cheat, and refused employment by all. Such an arrangement would interfere with the rights and interests of none entitled to sympathy, or worthy of confidence, and would soon work out a corrective of the evil complained of; for the alternative presented them would be—“*work or starve*”—and what better work than this could be commenced in this goodly month of winds, when so much should be done, and when the penalty of its non-performance is fraught with so much evil.

Turning from the subject of hired labor, let us proceed to the discussion of those topics connected with the culture of the farm.

Sowing of Grass Seeds—Such farmers and planters as may not have put in their grass seeds last autumn should do so as soon as the frost is out of the ground. For *clover*, there is but one opinion as to the superiority of spring sowing, and although many give the preference to sowing timothy seed in August, still there are those, whose opinions are worthy of consideration, that advocate the practice of setting it in spring on the growing wheat or rye: so also, indeed, with respect to almost every other of the artificial grasses.

If you intend to sow *clover* seed alone on your grain fields, you should not think of seeding less than from 12 to 16 pounds to the acre.

Timothy, if sown alone, should be in the proportion of from 2 to 2½ gallons of seed to the acre.

Rye Grass alone 2 bushels to the acre.

If *Clover* and *Timothy* be sown together, from 10 to 12 lbs. of the former seed and a peck of the latter would not be found too much.

If you purpose carrying your mixture still further, sow 10 lbs. of clover seed, 6 quarts of timothy, ½ bushel of herd's grass to the acre,—or

Of *clover* 8 lbs., *orchard grass* 1 bushel, *tall meadow oat* 1 bushel, and *herd's grass* ½ bushel.

In Europe the following is in many districts a popular mixture, 2 bushels of *rye grass* seed, and from 12 to 20 lbs. of *clover* seed to the acre.

It is usual to sow the orchard and tall meadow oat in early autumn, but there is no question that

they would succeed now. The orchard grass should be moistened with water and permitted to remain so for a day before sowing.

Whatever grass seeds you sow on your winter grain, be sure to pass a light harrow, and roller over them. You need not apprehend any injury to your grain, for although some roots may be dragged out, you will be more than remunerated by the addition you will receive from the tillering of the branches of the plants which will be imbedded in the soil during the process. That the grass seed will derive advantage from being thus securely placed beneath the soil, common sense and reason both concur in affirming. They will be much more likely to escape destruction from birds than if left upon the surface; they will vegetate with greater certainty, and being well fixed in the earth, their roots will be much better able to withstand the droughts of summer and the frosts of winter. We need not say that the operation of harrowing and rolling should be performed when the ground is in a state to bear the treading of the horse without injury, as it will strike the intelligent reader that if done when the ground is *wet*, much injury will result to the grain.

Lucerne—Those who may feel disposed to try their fortune with this valuable grass, can do so as soon as the ground is relieved from the frost and dampness. It should be sown on a dry rich soil, which had been previously well cleaned. From 16 to 20 quarts of seed should be sown. It may be put in with the spring barley and oats. In England and Scotland it is frequently cut four times in a season.

Oats—The earlier, after the frost is out of the ground, that you get your oats in, the better, and if you can possibly spare them, from your other crops, a portion of manure, do so; for you may rest assured, notwithstanding custom has allotted them to grow on the poorest part of the farm, unaided by nutritious substances of any kind, they would be all the better of a dressing of something calculated to urge them forward. It is to be sure in the general by no means a profitable crop, but then it is a most necessary one, and, therefore, should find favor. But should there be no manure to spare, do, if you can, give the soil an extra ploughing, and thus in part atone for your neglectful culture. We often hear farmers complaining of the degeneracy of, and the falling off of this grain in weight, and may not this be accounted for in the fact, that they are generally grown on the very poorest spots that are to be found, and left to grope their way to maturity in the best way they can.

Two or 2½ bushels to the acre is the proper

quantity of seed. They should be well harrowed in.

Potatoes—Should the weather admit of it, you should get in your *early potatoes* from the middle to the latter end of this month. But you should not dream of reaping a good crop unless you are liberal in your bestowal of labor and manure in the preparation of the soil. Your ground should have a southern exposure, and either be a good soil naturally, or be made so by art. It should be thoroughly and deeply ploughed and harrowed; then strike your rows about 27 or 30 inches apart, place your sets about 10 inches distant from each other, throw in your rows a goodly portion of unfermented stable manure, then cover them with the soil, either by running a furrow on either side, or by hand-hoeing. In either event, no clods should be permitted to come in contact with the sets. As soon as there is the least indication that the potatoes are coming up, run the harrow crosswise the rows; when the potatoes are up two or three inches, plough a furrow on either side from the potatoes; this must be replaced by throwing the furrow back again. This process will greatly improve the tilth of the soil, and thereby afford the young potato plants an additional chance of moving onward in their growth. After the furrow is thrown back, the rows should be gone over with a hand-hoe, cleaned of all weeds, and so regulated as neither to retain too much moisture, nor to present a surface that would easily suffer by drought. In two or three weeks more another ploughing and hoeing will be necessary; for it is important to keep the ground stirred and clean. This second ploughing however should not be so near to the plants in the rows as the former; and after this, the *cultivator* instead of the plough must be used to complete the work in about two or three weeks, which will be determined by the advance of weeds, and the wants of the potatoes.

Carrots and Parsnips—As soon as the frost is entirely out of the ground, you may begin to sow the seeds of these roots, for field culture, and thence up to the 1st of May, the sooner they are in the larger will be their yield, and as they are alike excellent as food for man and beast, we have always been surprised that comparatively so few were raised. An acre, well prepared and cultivated, in suitable soil, will yield from 500 to 600 bushels, which would be sufficient to keep four cows fully to their milk during the winter.

Manure—Carry out your manure to your fields in which you intend to use it. If you intend to top-dress your meadows, or growing crops of grain, the sooner that is done the better, taking the

precaution never to let your wagons or carts go on either when the ground is soft.

Lime—If you intend to use any this season, it is time you had made your arrangements for procuring or burning it. If intended to be used on your meadows, the sooner the better it is spread thereon; if on your corn ground, you cannot get it on too early, as it should receive sufficient ploughings to thoroughly incorporate it with the soil.

Ashes—Do not omit to provide yourself with a sufficient quantity of this delightful substance; to give your corn plants a dressing, however trifling the quantity applied, it will speak out most eloquently.

Fences—See to your fences and have them thoroughly repaired, and thus secure yourself against the inroads of stock of all kinds.

Tools and Implements—These must be examined and put in order,—and in fact at this critical period of the year, the farmer should have his eyes on the search in every direction.

IN THE KITCHEN GARDEN.

If you desire to have your table spread with early vegetables, those grateful accompaniments of well cooked viands, prepare yourself without delay a hot-bed, and sow your seeds as cabbage, lettuce, tomatoes, egg-plant, cucumbers, &c. Have you the frames? If you have them not, get a couple of window frames with the glass in them, fix yourself up a box, (the back elevated to about twice the height of the front,) to fit your sashes, then prepare your hot-bed, by simply separating the grosser parts of your horse-dung and putting it in to the depth of about four feet: this must be permitted to remain for some time to go through its more violent heatings, when about 4 inches of good mould should be put on in a dry state; upon which, sow your seed. Over your glass you must throw a matting of straw at night, and always in falling weather. If the middle of the day be fine, the matting must be taken off and the sash raised to give ventilation.

If you have no window frames, make a hot-bed on a southern border well protected from the wind. It can be done very readily. Dig out the earth, the length required, a spit deep, put in fresh horse dung to the depth of 6 inches, then throw on the earth that had been previously dug out, rake it fine: take stakes with prongs, and drive in back and front, about a foot higher than the bed, place poles from stake to stake, then cover these with a thick layer of corn-stalks, then put on leaves or straw an inch or two thick, and top the whole with pine brushes. At night, or in bad weather, you should cover this bed with a straw matting, which should extend in front so as to reach the ground. On this bed sow your different kinds of seeds, and rude though it be, it will afford you as many plants as you may require.

We have given above, two very simple modes of making a hot-bed, and shall now copy from M'Mahon his plan of one. He says, in speaking of the

FRAMES:

Large frames ought to be made of inch and half or rather two inch plank, of the best yellow pine, 9 ft. 2 in. long, 4 feet 10 in. wide, as high again in the back as in the front, to give the top a due slope to the sun and a proper declivity to carry off the wet when covered with glass lights, to move off and on occasionally; every joint ought to be tongued, the better to prevent the admission of cold air into, or emission of warm air out of the bed, but in such manner as the gardener may think proper. The back and front are to be nailed to corner posts, so as to admit the ends to fit in neatly, which ends are to be made fast to the posts by iron bolts keyed in the inside, for the greater facility of taking the frame asunder when necessary; each end must be made one inch and a half higher than the back and front, so as that one-half its thickness may be grooved out on the inside, for the sash to rest and slide on, and the other half left for its support on the inside; when finished give it two or three good coats of paint before you use it, and with a little care and an annual painting, it may last you twenty years.

These frames will take three lights of three feet wide each, each light containing five rows of glass frames, six inches by four, over lapping one another about half an inch, which of all other sizes is the most preferable, on account of their cheapness in the first place, the closeness of their lap, their general strength and trifling expense of their repairs; however each person will suit his own convenience as to the size of the glass. Where the sashes when laid on the frame meet, a piece of pine about 3½ inches broad and near two thick, should run from back to front morticed into each, for their support, and for them to slide on; in the centre of which, as well as in the ends of the frame, it will be well to make a groove, 5-8ths of an inch wide and near a quarter of an inch deep, rounded at bottom to receive and carry off any wet which may work down between the sashes.

METHOD OF MAKING A HOT BED.

Provide the requisite supply of good horse stable dung, consisting of that formed of the moist stable litter and dunging of the horses together, choosing that which is moderately fresh, moist and full of heat—always preferring that which is of lively, warm, steamy quality, and of which take the long and short together as it occurs, in proper quality as above. If the dung is rank it would be proper to prepare it a little to an improved state, more successful for that purpose, by forking the whole up into a heap, mixing it well together, and let it thus remain eight or ten days to ferment equally, and for the rank steam and fierce heat to transpire.

Choose a place on which to make your hot bed in a dry sheltered part of the garden, open to the morning and south sun: it may be made either wholly on the surface of the ground or in a shallow trench, of from 6 to 12 inches deep and 4 or 5 feet wide, according to the frame: if made on the surface, which is the most eligible, as it affords an opportunity of lining the sides of the bed with fresh horse dung, quite down to the bottom, to augment the heat when it declines, and also prevents wet from settling about the bottom of the bed, as often happens when made in a

trench, which chills the dung and causes the heat to soon decay.

Then according to the size of the frame, mark out the dimensions of the bed, either on the ground or with 4 stakes, making an allowance for it to be about 4 or 5 inches wider than the frame each way: this done, begin to make the bed accordingly, observing to shake and mix the dung well as you lay it on the bed, but I would not advise treading it; for a bed which is trodden hard will not work so kindly, and be more liable to burn than that which is suffered to settle gradually itself: proceed in this manner until the bed has arrived at the height of 4 feet, which will not be too much, making an allowance for its settling 6 or 8 inches, or more, in a week or fortnight's time; and as soon as finished, let the frame and glass be put on: keep them close till the heat comes up, then raise the glass behind that the steam may pass away.

The next thing to be observed is about earthing the bed, in which to sow the seed, and for which occasion should have a proper supply of rich, light, dry earth, or compost, ready at this season, under some airy dry shed or hovel, covered at top to keep out rain, that the earth may be properly dry; for if too moist or wet at the time, it would prove greatly detrimental both to the growth of the seed and young plants, as well as be very apt to cake and burn at bottom next to the dung, by the strong heat of the bed: three or four days after the bed is made prepare to earth it, observing previously if it has settled unequally to take off the frame and glasses, and level any inequalities; make the surface smooth, put on the frame again, and then lay therein as much of the above mentioned earth as will cover the whole top surface of the bed about 3 or 4 inches thick. In two or three days you may sow your seeds, after which put on the lights or glasses close, but when the steam rises copiously give it vent by raising one corner of the upper end of the lights half an inch. Cover the glasses of the hot bed every evening an hour before sunset, if mild weather, earlier if bad, with garden mats, uncover them every morning between 8 and 9 o'clock. The plants should have air every day.

This we deem all sufficient to enable the farmer to manage his hot-bed successfully, and for the subsequent treatment of it we shall leave that to his own judgment and that of his gardener.

If you are disposed to encounter the trouble—and it is nothing compared with the value of the luxuries you may enjoy—you may raise early cucumbers, lettuce, melons of all kinds, cauliflowers, and all other tender vegetables in your hot-bed for transplantation, and thus as it were anticipate nature in her usual annual gift of those delicious luxuries.

Cabbages—Sow all the early varieties of cabbage seed, and by the time the earth is warm enough to receive the plants into its bosom in the open air, they will be ready to be removed thither, and if judiciously managed in setting out and after culture, they will head nearly as soon as those which were placed out last autumn.

General crop of Cabbage.—Towards the latter end of this month, you may sow with decided advantage, the flat Dutch, Drumhead, large Eng-

lish Savoy and indeed all the different varieties of Cabbage. When sown early, you have a better chance of availing yourself of a good season to transplant them, the plants have longer time to grow in, and will attain a much larger size than if sown late.

Peas.—As soon as the frost leaves the ground, you may put in all sorts of early peas, and if planted at intervals of a week or two throughout the spring, you may secure a continuous succession of this delightful vegetable, either for the table or market.

The soil most suitable for peas, is a light sandy loam, tho' they will grow well in any ground except it be in a stiff tenacious cold clay. From 3 to 4 feet is a good distance for the rows to be apart, the peas to be dropped about 4 inches asunder. Generous manuring tends not only to increase their quality of product, but to accelerate the maturing of the pea family. The peas should be stuck before the plants throw out runners.

Windsor Beans.—All of this tribe of vegetables may very safely be planted in open culture after the 20th of this month.

Hyssop, Sea Kale, Garlic, Artichokes, Fennel, Rhubarb or pie plant, Lettuce, Radish, Spinach, Carrots, Parsnips, small Salading of all kinds, Celery, Onions, Beet, Leeks, Shives, Parsley, Thyme, Sage, Broccole, and Asparagus seeds, should now be sown and planted.

Asparagus.—Your asparagus beds should be forked and dressed the latter end of this month. In forking be especially careful to stir and loosen every part of your beds, and equally so not to go deep enough to wound the crowns of the roots.

If you desire to make new plantations of this vegetable, you may with perfect safety put out your plants as soon as the ground is rid of the effects of the winters frosts.

Turnips.—If you desire to have early turnips for your table, sow the seed any time after the 20th of this month.

All the fruit trees in your garden may now be advantageously trimmed and pruned—so also your gooseberry, currant and raspberry bushes; the cuttings taken from the three last should be planted out to form the material for future plantations of these excellent and healthful fruits.—Let the ground be thoroughly stirred around the old bushes.

Figs.—This is the best month for planting out fig trees, or for setting out cuttings, layers or suckers from them.

Grapes.—The earlier after the frost is out of the ground that you transplant vines, or put out your cuttings the better, for it is important that they each start in their growth with the earliest vegetating power of the earth in spring.

Rose, Snow-ball, Lilac, and all other bushes of the flowering tribes should be set out as early this month as possible.

As soon as the plants in your strawberry beds push through the earth, the beds should receive a dressing. Clear out all the weeds, decayed leaves, and old runners: loosen the earth around the plants, and apply some rich mould about them, digging it in so as to prevent a loss from evaporation or washing.

IN THE ORCHARD.

All the different kinds of fruit trees which have not been pruned, should undergo that operation as speedily as possible, and the wounds should be immediately covered with M'Mahon's medicated tar, or some other mixture competent to effect the same object; this tar is thus made and compounded:—

Take 1-2 oz. Corrosive Sublimate, reduced to a fine powder, and 1-2 gill of gin or spirit. Put these into an earthen pipkin, stir them well until the sublimate is dissolved; then gradually add three pints of tar into this mixture until the whole is thoroughly incorporated, when a half pound of finely pounded chalk to give the tar an adhesive property must also be added.

This composition, says M'Mahon, will be found eminently useful, as no worm of any kind, can live near its influence, and no evil whatever, will arise to the trees from its poisonous quality; it yields to the growth of the bark, and affords a comfortable protection to the parts against the effects of the weather.

Young apple, peach, plumb, apricot, pear, cherry, and indeed all kinds of trees, and shrubs, whether fruit or ornamental, may be set out as soon as the frost is out of the ground.

The same excellent author further advises, that you should examine your fruit trees, particularly the peaches, and if annoyed by worms either in their trunks or branches, about the surface of the ground and a little under, pick out as many as you can with a sharp pointed knife, and with as little injury to the bark as possible; scrape off all the gum that appears on the stem or branches, and wash all these parts, and any other that you suspect to be infested with these insects, or their embryos, with a solution made by dissolving 1 drachm of corrosive sublimate in a gill of gin, which when dissolved must be incorporated with 4 quarts of water,—after which dress the wounded parts with the medicated tar described above.

[From the Centreville Times.]

THE EASTERN SHORE OF MARYLAND.

Mr. Editor.—Any man, who will take the trouble to consider for a moment, will be convinced that in a few years hence the Eastern Shore of Maryland (if not the whole State) will be ruined and depopulated, unless some plan shall be adopted to prevent the rapid emigration which is now going on. Persons owning slaves, who have no scruple of conscience upon the subject, tempted by the high prices offered for them, are sending them off in droves, or removing with them to the South. Our young men of education and business habits are allured to the South and West by the encouragement offered them of soon realizing fortunes. Our laboring and enterprising men with families are also removing to the West, where they are taught to believe their industry will be better rewarded. By a recent law of this state, all negroes thereafter manumitted must leave the State or go again into bondage. All negroes sentenced to the Penitentiary for the most trifling offences after they have served out their time or have been pardoned by the Governor, are compelled to leave the State within 60 days or be sold. The Colonization Society is holding out the most powerful inducements for

the free negroes to go to Africa, and the great public works going on in our country, offer great encouragement to them to leave our shore. By these different means, a continual drain is kept up, taking off yearly, hundreds and probably thousands of our population. The reported unhealthiness of our climate deters enterprising and working men from filling up the places thus made vacant. Besides the uncertainty of our crops and the worn-out soil of many of our lands seem to hold out no inducements for strangers to come in, or for our industrious citizens to remain. This being the case, it becomes the landholders to look about themselves and to prepare for those evils, which must soon occur, unless some preventive can be applied. Land must depreciate in value as soon as there shall not be a sufficient number of laborers to till it. Poor land will of course be abandoned and left out of cultivation in ten years hence, or in twenty years at the most, if things continue to go on as they are now going on, thousands of acres of land will be turned out as commons, and many widows and children, whose husbands and fathers have toiled hard to procure for them a home and a support, will be beggared and ruined. Who that has any regard for the place of his nativity, and is unwilling to abandon the graves of his fathers and dearest friends, does not feel a wish to avert this melancholy state of things?

Humanity and religion point out a course which might be adopted to remedy some of the existing evils, but as their dictates are too often unheeded, or smothered by avarice and the love of money, I will not urge them on this occasion—but will suggest other remedies for the consideration of my fellow citizens, which under the blessings of Divine Providence, may partially succeed in saving our shore from being forsaken. Before making any suggestions, however, I will premise that no people can be long happy or prosperous, who are deaf to the appeals of humanity and christianity, and who suffer silver and gold to stifle the whispers of conscience. The first remedy I would propose is that our farmers should divide their farms into small fields and improve them. This would prevent the necessity for many labourers. The other parts of their farms should be appropriated to grazing and the raising of stock, and their meadow lands should be cleared up to afford hay for the winter. Attention should also be paid to the planting of peach and apple orchards, not for the purpose of making brandy, that destroyer of the families who use it—but for the furnishing of food for cattle and hogs. Our farmers should also turn their thoughts to the raising of mangold wurtzel, cymblins, pumpkins and Ruta Baga, which a small piece of land may be made to produce a great quantity of feed for stock. Beef and pork will always command a good price at our public works, or in our large cities. In addition to these things, they should turn their attention to the raising of beets and manufacturing sugar and molasses from them, thereby securing to their families not only these useful, wholesome and cheapest article of diet, but at the same time affording to their stock the most nutritious and fattening food. The beet grows finely in our land and the expenses of cultivation are trifling. It

is affirmed also by writers upon the subject, that the culture of the beet improves the land.

Another subject which should deeply interest our agriculturists, is the making of silk. No man who will read carefully on this subject can fail to be convinced that the making of silk is destined to be a source of incalculable wealth to this nation. Every farmer without interfering at all with his other pursuits, may in two or three years make from five hundred to one thousand dollars annually, from those parts of his farm which are now uncultivated, because they are poor or occupied by fences. The mulberry upon which the silk worms feed, makes excellent hedges. Any one who wishes to inform himself upon this branch of business, is advised to purchase Roberts' Silk Manual, which can be had in Baltimore for fifty cents, and to take the Silk Culturist, a paper published by the executive committee of the Harford county Silk Company, edited by F. G. Comstock at Hartford, Connecticut, and which comes out monthly at fifty cents per year. The Silk culture on a large scale promises not only a good profit, for the capital employed, but will afford a decent support to hundreds of women and children, who would otherwise suffer or be dependent upon charity. I am aware that these projects will be considered visionary by those who have not investigated the subject; and so was the introduction of the cultivation of cotton estimated in former years.—Men of the first intelligence in these states (and among the rest the Honorable Daniel Webster) are entering into the silk culture with spirit, and many other of our most intelligent citizens are forming companies for the cultivation of the Beet and the making of sugar. The Queen Ann's county Silk company, which commenced the planting of trees the last spring, expect to feed six hundred thousand silk worms, the next season. Should they succeed, these worms would make 200 lbs. silk, which at the minimum price of raw silk, would bring eight hundred dollars. Say they make only half that sum, they would be more than paid in one year for their outlay for trees, and will probably have from fifty to one hundred thousand trees for use the succeeding season. The soil and climate of the Eastern Shore are admirably adapted to the raising of mulberry trees, and the rearing of silk worms. Should the silk business and the making of sugar succeed well (as I have no doubt they will) there will be no inducements for our citizens to seek other homes. Poor and high land is said to produce the best silk. Women and children are capable of gathering leaves, feeding the worms and reeling the silk.—In N. York I have been credibly informed that two daughters of a farmer did all the house work of a large family, and cleared upwards of four hundred dollars each a year, by feeding silk worms and making silk. It is true it takes good land to raise the beet; but a very small portion will yield a great quantity of beets and consequently of sugar and molasses. The remains of the beet after extracting the sugar and molasses afford excellent food for fattening cattle or for milch cows. It has lately been asserted very confidently that after the extraction of the sugar, a quantity of potash can be obtained from the beet, which promises to yield also great profit to the manufacturer.

It is deeply to be regretted that we cannot keep up agricultural societies on our shore. The present state of things calls loudly upon every man who expects to live here, [and who does not wish to do so if he can] to turn his attention to our present condition and prospects, and to make vigorous efforts to prevent our lands from being abandoned. Who will be disposed to purchase land, which he sees no prospect of cultivating or renting out after a few years?

If some influential farmers would move in the matter, I feel assured that a general sense of the necessity of the case would prompt the other farmers to unite in any feasible project to advance the general interest. Before I close I would most respectfully propose that meetings be held in every county to petition congress not to remove the duty on foreign grain, except in cases of scarcity. These reflections are hastily thrown out for the consideration of Eastern Shoremen by

A FARMER.

Queen Ann's County, Jan. 20.

EXTRACTION OF BEET SUGAR.

Cleaning.

The first processes to which the beets are subjected are to clean them of the earth and gravel which may be left adhering to them, and of the small filaments and the parts of the neck attached to it. This is the object of the cleaning, which is done in the following manner. A woman with a very sharp knife, the blade of which is about two inches long and two or three broad, cuts off the radicles, takes up the parts of the neck which have been left in the beheading, and scrapes the root lengthwise, to clear it of the earth. When the beet is too large to be fixed upon the rasp, the operator splits it lengthwise and divides it into two or more pieces. Two women, accustomed to the work, cut and clean three thousand roots when small, and doubtless when they are larger. The loss of weight by the cleaning is about six to seven per cent. of the gross weight.

Washing.

The factories which can command a sufficient supply of water, commonly make a washing follow this operation of cleansing. The washing is economically done in a large cylindrical box, the circumference of which is formed with slats of wood at intervals of an inch and a half. This cylinder is enclosed in a cistern full of water.—About two quintals of beets are put in at a time, and they are perfectly washed by some turns of the machine. This washing is not indispensable, only when it is omitted more care must be given to the cleansing of the beets. For if it were done negligently, and any earth were left attached to the roots, the teeth of the rasp would be injured. The only use of washing is to give the beets to the rasp in the best condition for it.

The pulpy roots are, properly speaking, spongy masses, the holes or cellules of which are filled with juice. The spongy tissue, which commonly makes but three or four per cent. of the weight of the root, is wholly composed of parenchyme or woody fibre. Compression merely, however strong we may suppose it, is not sufficient to break this tissue and extract the liquid

matters contained in it. To effect this, it must necessarily be subjected to the action of a machine which shall cut it up, and open the greatest possible number of these cellulæ. Experiments have in fact shown that the greatest pressure will not obtain more than 40 or 50 per cent. of the juices of beets, whilst the pulp obtained, by the action of the rasp on these roots furnishes from 75 to 80 per cent.

Rasping of Beets.

The mode which was first thought of to facilitate the best division of the beet was to boil it. This also was the same M. Archard had invented, who, after having boiled the beets in vapor and reduced them to paste, tried to express them. But the minute division of the pulp, which was nothing but a clear paste, presented another inconvenience. It was then impossible to separate the juice from the parenchyme, this passing through the bags in which the paste was enclosed to be submitted to the press. It was therefore necessary to return to rasping the raw root.

The apparatus, which, in the factories of beet sugar, and in those of the feculæ of potatoes, bear the name of rasps are composed of a plane surface, cylindrical or conical, according to the particular disposition of the apparatus, armed with rows of teeth set perpendicularly. The surface, revolving on an axis, receives from a moving power a very rapid rotary motion, by which means it tears the substances subjected to its action.—In some cylindrical machines the swiftness is so great that it makes 800 revolutions in a minute.

The form of these rasps and disposition of the blades is very various. The teeth are sometimes placed on the inner, sometimes on the outer surface. When the surface is cylindrical, we give it a horizontal position; when its form is conical, the axis or the cone is vertical.

The object that we must endeavor to obtain in the rasp is the greatest possible division of the beet; for the more perfect this division is the more juice is obtained, and of consequence more sugar, in a given quantity of roots. But it is also necessary that this operation be executed in a short time, and by the waste of the least power. Among all the rasps which have been tried hitherto, those which seem to unite in the greatest degree these different advantages and which we ought particularly to mention are those of M. M. Burette, Thierry, Molard, Jr. and Odobbel.

The rasp of Mr. Burette, uniting to perfection of work, a great simplicity and a moderate cost, which makes it suited to small establishments—the price being but 400 francs, we will give a short account of it borrowed from the report made on this machine, by M. Pajot Descharmes, in the name of the committee on the mechanical arts.

“A solid stick of oak, oblong, mounted on four legs, supported above and below by traverses, constitutes the frame which bears the different parts of the new mechanism nearly all disposed on the length of the upper traverses. These parts are composed of a cylinder of wood, suitably prepared; it is 18 inches diameter, and eight inches broad, and armed on the circumference with 80 teeth 7 inches long. The axis of the cylinder bears at one end an iron pinion furnished with 16 teeth, which fit into those of a wheel, also of iron,

having 120 teeth. A handle 18 inches long is placed at each end of the axis of this last wheel. Under this cylinder is placed a sort of box, inclined so as to send back the pulp obtained into a trough used as a recipient. On the same end of the stick, and before the circumference of this cylinder, is added, on a moveable centre, a sort of wooden flyer which receives from the axis of the pinion, and, by the aid of a see-saw, a traversing motion to and fro, in such a way that the space between the cylinder and this flyer for the passage of the substance to be rasped is alternately closed and open. The opening always is limited by a small bar, on which the flyer in its recoil is stayed. All the parts of the machine which are without the stick are covered with a box surmounted by a hopper capable of containing at least a quintal. By this machine the contact of the beet with the rasp is effected very quickly, without any splashing or waste.

Expression of the Sugar.

The beets reduced to a pulp by the action of the rasp must be then pressed, to separate the liquid part from the pulp or vegetable fibre. To this end they are put under a press. Any kind of press may be employed for this purpose.—Thus in these labors it often happens that one and the same press is issued for the pulp of the beet and the produce of the vineyard. However, the object in submitting the pulp of the beets to the press being to extract the greatest quantity possible of the juices they contain, it is necessary to subject them to considerable power of pressure, which it is hardly permitted to hope for with such an apparatus.

The presses most generally used are strong screw presses which only differ from the wine presses in being constructed with more care.—These machines are too well known to make a detailed description necessary.

We have tried a cylinder press of M. Lauvergnat, which has also been adopted in some factories. It is composed of two superposed cylinders. They are in a plane slightly inclined. The lower cylinder is cast-iron with a wrought iron axis. The upper cylinder is wood, its axis also of iron. These two axes turn in copper pads, which are moveable in a vertical direction, in order to be able to close the upper cylinder more or less on the lower one by two compressing screws. These cylinders receive a movement equal, and in opposite directions. Between the two cylinders is placed a cloth without end, made of strong canvas. This cloth is extended over several points of the machine by four wooden rollers, which keep it in place, and one of them is so disposed that it supports one part in a horizontal position. On this part of the cloth the substances about to undergo the compression, come, by passing through the cylinders. For this purpose, a box without bottom is placed on the horizontal part of the cloth, designed to receive the matter to be pressed. Beneath the cylinders, is a second box or tray, into which the expressed juice flows. The pulp thus enters one side of the cylinders and goes out at the other, exhausted of its liquid. This machine, which on the whole is very ingenious, has the disadvantage of not pressing the paste sufficiently to extract all

the liquid; so that the pulp must be submitted to a second pressure under a screw press. This happens for the reason that the cylinders cannot be closed upon one another but to a certain point. If they are too near, but a small portion of pulp passes, very thin, which makes the operation much too long.

Some manufacturers have used the double press of M. Isnard. In this kind of press, the screw, instead of being vertical, is placed horizontally. At each end of this screw is fixed a plate, against which it is supported. The nut is in the middle of the screw, which receives a recilinear motion to and fro, in such manner that when loosed from one plate it exercises a pressure on the opposite one. The position of the screw, and that of the matter to be pressed, render the working of this machine very convenient. It produces otherwise but a moderate effect, and seems to be generally given up.

Of all the methods to obtain a strong pressure, the most effectual is, doubtless the hydraulic press, which, as is well known, is founded on the hydrostatic principle, so that a pressure exerted of a liquid is transmitted through the whole mass with a force equal to that on the surface. We will give an idea of the manner in which the application of this principle is made to the hydraulic press.

To make this explanation more easy, we will imagine two hollow vertical cylinders of very different sizes, communicating with one another by any means whatever. A moveable stopper, which we suppose to have the form of a solid cylinder, enters into the larger cylinder, exactly fitting it. In the interior of the small one is a piston, having an arm of a lever. If, the two cylinders being full of water, a pressure is exerted by means of the arm of the lever and the piston on the surface of the fluid in the small cylinder, this pressure will be transmitted to the fluid of the larger, increased in proportion to the volume of the two cylinders. Thus, if the contents of the larger cylinder is one hundred times that of the small, the pressure on the surface of the first will be one hundred times that which was exerted on the other. This being well understood, it is easy to calculate the action of a hydraulic press.—If the two cylinders being full, a new quantity of water is made to enter by means of a small forcing pump put in play by the same lever which gives the pressure to the small piston, this water, pressing from all sides, will raise the moveable stopper in the large cylinder which raises to the upper part of the plate of the press.

This kind of press, which offers great advantages, has been adopted in all the factories where considerable pressure is required.

Whatever press, in fine, any one has at its disposal, one of the most important points is, that it work quick, and that the interval between the rasping and the pressure should be the shortest possible, so that the juice should not undergo any change.

The pulp, in order to be passed through the press, is enclosed in bags of strong cloth, but not too close for the liquid to escape easily; for if it should not escape, the bags would break under the pressure. The dimensions of these bags is to be determined by that of the press, leaving

an excess of length sufficient for the fold that is to form the bag. The quantity of pulp put into each bag should be such as to form, when spread, a bed not exceeding an inch and a half or two inches thick. For this, a workman after having put the pulp in the bag, bears it on a hurdle of ozier placed on a tray, there, with his hands he spreads this pulp in a bed in the inside of the bag, the end of which open below, he fills with it. He places a hurdle on it, and above a second bag which he disposes like the preceding. When he has thus formed a pile of ten bags, a second workman raises it, and places it on the plate of the press. When the press has received its quota of twenty or thirty bags, varying according to its height, it is put in play.

We give to the whole of the bags which are put to the press, and which should be the same at each time, the name of a set of bags. Thus there are many sets, and some bags for change, in case of accident.

While one set is in the press, the workmen prepare another, in order that there may be no interruption in the labor. The tray on which they are arranged is designed to receive the juice that flows from the pulp when it is spread in a bed on the bags. The hurdles rest on two traverses of wood placed parallel on the length of the tray, in the direction of its breadth.

By the effect of the pressure, the juice running out of all parts, falls on the plate, and thence is conducted by a gutter into a reservoir of wood lined with copper. As it is necessary that the pressure should be made gradually, a single workman at first works the press, a second, third, and so on, coming successively to join him, to produce the greatest pressure. Then they leave the press, which, after remaining a quarter of an hour, is loosed, the bags taken out, and carried to the place destined to receive the pulp, where they are emptied, turned and beaten, in order to detach the matter adhering to them.

The bags and the hurdles should be washed at least every twelve hours with boiling water, to which should be added a little salt of soda. It should be the same also with the trays, the plates of the press, and generally all the utensils used in the operations above described. The washing of these should be done with cold lime water. In some factories where the screw press is used, they are accustomed to slack the press, to put the bags below, to remove the pulp, and then to subject it to a second pressure. This is intended to supply the defect of power, which cannot be otherwise obtained by these presses.

With a hydraulic press, capable of receiving each time thirty bags of twenty-two inches long, and fifteen broad, filled each with an inch and a half thick, the whole weight being about 800 pounds, may be made in twelve hours, ten or twelve pressings, which at the rate of 70 parts of juice for 100 of pulp, will produce from 2,800 to 34,000 litres* of juice.

* Litre is a French measure, which, under the new system of measures, supplants the old pint. A litre of juice would be two pounds, by the above calculation.

Agriculture was the first, and should ever be the most esteemed of all pursuits.

THE GEOLOGICAL AND TOPOGRAPHICAL SURVEY OF MARYLAND.

We have read with unmingled feelings of pleasure and pride, the reports made to the government of Maryland upon these subjects by professor *Ducatel*, and *J. H. Alexander*, Esq. As a Marylander, bound to the state of our birth by every tie which render her prosperity dear to our heart, and glorying in any thing conducing to the development of her resources, we confess we arose from the perusal of these able reports, impressed with the profoundest sense of gratitude to the wise counsels, by which these surveys were projected, and the liberal policy by which they have been carried on and conducted. And while we thus indulge in feelings of patriotic delight, at the vast sources of wealth unfolded to the people of Maryland, we would express the hope, that no evil spirit of false economy, may pervade the minds of the present Legislature, to arrest the completion of those good works, so auspiciously begun. To stop their further progress, would be an act so suicidal, so fraught with ruin, so unjust to those parts of the state which have not been already explored, that we cannot for a moment get our own consent to believe, that any man worthy of the representative trust, could seriously contemplate a measure so destructive to the well grounded hopes, and so repulsive to the feelings of enlightened patriotism. What is economy, but the judicious expenditure of money? And shall we now, in the midst of a great public work, in which every landholder, nay, every citizen, of the state, is deeply concerned, shut the doors of the treasury, and leave the beautiful structure which is at once to be the monument of Maryland's pride, and the precursor to her greatness, half finished, to moulder in ruins, and be the index that shall point the finger of scorn to the instability and weakness of her statesmen? Heaven forbid that so short-sighted and culpable a policy should so far obtrude itself upon our law-givers, as to produce a result so disastrous to the welfare of this good old commonwealth.

Looking at the geological survey of Calvert County, viewing the immense deposits of calcareous manures which has been so clearly pointed out, and justly appreciating the countless benefits they are calculated to confer upon the agricultural interests, we are free to declare that, if nothing else had been achieved by professor *Ducatel*, and his enlightened associate, the survey of that county alone, is worth to the state ten thousand times more than all the money which has

been expended upon both of the surveys. And when we reflect upon the great mass of geological and topographical information, which the labors of these gentlemen have brought to light, in almost every county of the state—when we consider the value of those priceless beds of marl, in all its forms, oyster shells, coal, iron ore, and other minerals, which professor *Ducatel*'s skill has designated and rendered available—when we view the innumerable lights which Mr. Alexander has thrown upon the geography and topography of the state—the clearness with which he has developed the practicability of various plans of internal improvement, as an individual, we must be indulged in the expression of the opinion, that their labors have been of more intrinsic value to the state, than those of any other gentleman since Maryland assumed the right of independent government.

Before we close this paragraph, the occasion seems to require, that we should state, that, as Maryland set the example of this great work, her pride and honor are both pledged to carry it into complete and perfect execution: following her lead, Virginia, Pennsylvania, New Jersey, New York, Louisiana and Michigan,* and we believe some other states, have already, or are about to adopt similar measures. Can we then, without a violation of that comity due from one state to another, retrace our steps, when so near the fruition of our most sanguine hopes? We say no—*emphatically, NO!!*

*Michigan has just appropriated *thirty thousand dollars* for a geological survey.

We trust the Legislature of Maryland will not rise without doing something *effective* for the agricultural interest—duty and self preservation, so strongly point to prompt action, that we deem an argument on this point superfluous, and shall content ourselves with the simple indication of our wishes as above expressed.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 *Morus Multicaulis* trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,
Baltimore, Md.

March 7. 41.

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Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel	92	95
White,.....	"	90	92
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's.....	"	—	—
Do. do. Superfine, ex.	"	10 37	10 37 1/2
SuperHow. st. in good de'd	"	10 37	10 73 1/2
" wagon price,.....	"	10	10 25
City Mills, super.....	"	10 00	10 25
Do extra.....	"	10 25	10 50
Susquehanna,.....	"	10	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 00
do. in bbls.	bbl.	—	4 62
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,.....	"	—	—
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	—
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	62	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality,.....	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 30
Red, best,.....	"	2 20	2 25
inferior,.....	"	1 25	1 75
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhds.....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,.....	pound.	50 to 60	30 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do.....	"	38	42 26 28
Common & one fourth Meri.	"	35	33 26 28
Pulled,.....	"	38	40 26 28

Howard st. Flour, sales limited, receipts very light.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000* GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & CO.

mh 7

Light, near Pratt street wharf.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,..... do.....	"	—	15
Middlings,..... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	2
CHOP RYE,.....	"	—	2 25
Eggs,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,.....	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ———— No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,.....	do	Farmers Bank of Virginia 1
Other Branches,.....	do	Bank of Virginia,..... 2 1/2
MARYLAND.		Branch at Fredericksburg do
Banks in Baltimore,.....	par	Petersburg,..... do
Hagerstown,.....	3 1/2	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... do
Farmers' Bank of Mary'd, do	do	Danville,..... do
Do. payable at Easton,....	2	Bank of the Valley,..... 1
Salisbury,..... 5 per ct. dis.	1	Branch at Romney, 1
Cumberland,.....	1	Do. Charlestown,..... do
Millington,.....	do	Do. Leesburg,..... 1
DISTRICT.		Wheeling Banks,.... 2 1/2
Washington,.....	3 1/2	Ohio Banks, generally 3 1/2
Georgetown,.....	3 1/2	New Jersey Banks gen. 1 1/2
Alexandria,.....	3 1/2	New York City,..... 1 1/2
PENNSYLVANIA.		New York State,.... 2 1/2
Philadelphia,.....	3 1/2	Massachusetts,..... 2 1/2
Chambersburg,.....	1	Connecticut,..... 2 1/2
Gettysburg,.....	do	New Hampshire,.... 2 1/2
Pittsburg,.....	2 1/2	Maine,..... 2 1/2
York,.....	3 1/2	Rhode Island,..... 2 1/2
Other Pennsylvania Bks. 1 1/2	2	North Carolina,.... 3 1/2
Delaware [under \$5].....	3 1/2	South Carolina,.... 3 1/2
Do. [over \$5].....	2 1/2	Georgia,..... 3 1/2
Michigan Banks,.....	6 1/2	New Orleans,..... 6
Canadian do.....	6 1/2	

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be *proved breeders*. They are of good size, being from 52 to 55 inches in height, stout built and healthy; colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law *strictly prohibited*; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if *immediately applied for*, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth street, feb 28—4t Philadelphia.

GARDEN SEEDS.



The subscribers are now opening a superior lot of GARDEN SEEDS, growth of 1836. The most prominent seeds received and for sale are—

250 bushels Garden PEAS, of various sorts

150 do Dwarf and Pole BEANS.

2000 lbs. CABBAGE SEEDS,

among which are Scotch Early York, a superior cabbage; Flat Dutch, Drumhead, Savoy, Early Bullocksheart, Early French, &c.

250 lbs. CUCUMBER SEED, of various sorts, including Keene's fine long green, white spined, &c.

1500 lbs. Mason's scarlet short top RADISH SEED; yellow turnip, long white, and every other variety of Radish.

1000 lbs. Mangel wurtzel, French Sugar and Table BEET SEED.

50 lbs. Kale Seed of various sorts

200 " Carrot Seed for table and field

30 " Lettuce Seed, several finest kind

250 " Onion Seed

300 " Ruta Baga Seed

Also, Tart Rhubarb Seed, Tomato, Egg Plant, Squash, Salsafy, Spinach, Okra, Leek, Celery, Endive, &c. &c.

FIELD SEEDS—English Perennial Rye Grass Seed; Lawn Grass; yellow and scarlet Trefoil; Lucerne; English and American Oats; Huskless Oats; Gama Grass Roots and Seed, early and late Potatoes; 10 kinds Corn, best early and late sorts; Albany field and Cow Peas; Clover Seed; Timothy; Herd Grass; Millet; Orchard Grass; Buckwheat; and in short every other Seed, Tool or Implement appertaining to the want of the farmer and gardner.

ROBT. SINCLAIR, Jr. & Co.

Light, near Pratt street wharf.

March 7.

A BARGAIN.

For sale a Devon cow with her third calf. The calf is a male, a few weeks old. The cow is a perfect model of her beautiful breed, and both warranted pure. Any gentleman wishing to obtain this excellent strain of English cattle cheaply, will do well to make early application to the subscriber. Price of cow and calf, \$95.

Apply to

EWD. P. ROBERTS,
Baltimore, Md.

March 7.

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100

Do. exclusive of the wheels, shafts and axle, 60

For applying the machinery to a common cart 45

For the machinery alone 40

Including the patent fee in each case. fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz. papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

Feb. 1837—23

SETH WHALEN, P. M.

Whalen's store, New York.

FOR SALE,

A half Durham and half Devon Bull, 4 years old of fine model and size. As his owner has no use for him he would be sold a bargain. Apply to the editor. ne 15.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 46.

BALTIMORE, MD. MARCH 14, 1837.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MARCH 14, 1837.

* * * The editors of papers with whom we exchange will confer a favor by inserting the subjoined Prospectus a few times in their respective papers.

EDW. P. ROBERTS & SANDS & NEILSON

Having purchased the Establishment of the

FARMER & GARDENER,

Successor to the

AMERICAN FARMER,

And being desirous to place it within the reach of every agriculturist in the United States, have concluded to *reduce its subscription price from five dollars, to two dollars and a half*, per year, from and after the beginning of the next volume, which will commence in May next.

It is now nearly eighteen years since the American Farmer was first established. Prior to its institution, there were no paper exclusively devoted to agriculture in the country, and it will not be arrogating any thing but what it deserves, to say, that, as it was the pioneer in the good work, the labors of its former conductors must have been productive of much solid advantage to those for whose benefit it was established. In continuing its publication, the present proprietors flatter themselves that its pages will be found to contain matter at once calculated to instruct and interest the agricultural reader. So far as they are concerned, they are determined to conduct it with industry, unflinching perseverance, and with undivided attention to the great and important purposes which called it into existence. They feel certain that none of its patrons will have cause to complain, at the end of their subscription year, that they have left any effort unessayed to render it worthy of their confidence and support.

In reducing its subscription price, they have ventured upon an experiment full of risk and responsibility, and as they have done so under the influence of motives which they must be permitted to say should commend it to a greatly in-

creased subscription—as they can alone look to that as the source of their remuneration—and as in so doing, their labor will be much increased—they appeal to its present patrons to aid them in giving it an extended circulation. They are confident that those who now honor them with their support, can, without personal inconvenience, in their own immediate neighborhoods, and among their personal friends, by using their deserved influence, procure such an addition to their present list of subscribers, as will not only realize their fondest expectations, but place them under renewed obligations of interest and gratitude, to render the *Farmer and Gardener* a welcome visitor to the fireside of every farmer and planter.

The *Farmer and Gardener* will at once be a faithful repository of original communications from practical agriculturists and horticulturists, and of judicious selections from every other available source. Foreign, and domestic agricultural, and scientific works, will be constantly resorted to, for the purpose of furnishing materials calculated to advance the prosperity and happiness of the country, and of adding to the intelligence of the American husbandman.

In fine, whatever concerns the business of the farm, domestic animals of all kinds, newly invented implements of husbandry, those of approved utility now in use, together with the principles and practice of agriculture, horticulture, and gardening generally, will be regularly and conscientiously noticed. The prices of produce in this market, and the value of bank notes will be weekly laid before its readers.

With a view of keeping their patrons advised of all superior breeds of animals already introduced, or which may be hereafter imported, they will seize the earliest opportunity of translating all such information to the columns of their journal.

TERMS, &c.

Price two dollars and fifty cents per annum for all subscriptions paid in advance, or within one month from the date of subscription—all subscriptions which remain unpaid beyond that period, will be charged at the rate of three dollars per year.

The *Farmer and Gardener* is published every Tuesday, is printed on fine paper, with a beautiful bold type.

The portion of the Geological Survey of Maryland, which we publish to-day, is replete with interest, not only to the inhabitants of the county immediately concerned, but to every section of our country, and especially to those parts bordering on tide water. Similar inexhaustible calcareous resources, which have been brought to light by Professor *Ducatel*, in his survey of Calvert county, may be, and doubtless are imbedded in various other districts of our wide spread territory, and only require to be searched for to be rendered contributory to the agricultural prosperity and welfare.

TIMELY OBSERVATIONS ON APPROPRIATE OBJECTS OF SPRING CULTURE.

Although it is too early to put any of the articles, which we shall herein touch upon, into the ground, it is nevertheless, not too soon to call the attention of our agricultural brethren to them, in order that they may have time to make all necessary and proper arrangements, to cultivate such of them as they may undertake, in a way that shall prove equally as creditable as profitable to them. It is a fact sustained by the experience of the best agriculturists, that as much depends upon the manner of culture, as on the quality of the soil, whether the product be large or small. This doctrine is, we are aware, carried too far in the theory of *Tull*; for he maintains with great power and plausibility, that pulverization, proper pulverization, is all that is wanting to make any soil highly productive.—This was claiming too much, and throwing suspicion around a most excellent agent in the art of agriculture. It was, in fact, detracting from its merits, and weakening the force and importance of one of the best means known to the husbandman to render the earth fruitful.

Whilst we are most strenuous advocates for deep and frequent ploughing; rolling, harrowing, and re-rolling, until all lumps are properly reduced, we hold it with equal zeal, that all soils must be nourished with alimentary and calcareous manures to render them permanently productive.

With this brief explanation, we will enter at once upon the remarks which we at present pur-

pose to make. The last winter, so trying to most farmers, so peculiarly severe upon many, has just past, and while the recollection of its pressure is still fresh upon the memory of all, let each resolve to profit by the sad experience of the past, and turn it to the best account. But first of all, with a view of improving time, we will devote a few words to the coming crop of

CORN.

This grain, as we all know, is, when well cultivated, capable of yielding more grain to the acre—more farinaceous material—than any other, and such is its peculiar aptitude to accommodate itself either to the long summers of our more southern region, or the short ones of the east, that varieties which take all the fructifying influence of the former to ripen their kernels, when translated to the latter, so accommodate themselves to the more brief duration of summer in that quarter, as to perform all its work of maturing before the autumnal frosts. But with all its excellent qualities of *nutrition*, *productiveness*, and *acclimation*, there is no crop more uncertain or precarious: there is none which better rewards high and neat cultivation, or punishes with more severity, he who tampers with its growth in a slovenly manner, on soil despoiled of its virgin strength, and when niggardly denied assistance by the besotted being, whose cupidity and ignorance, has made him at once as reckless of his own permanent interest, as of the necessities of the earth, whence he would impiously draw his sustenance. We say it is an uncertain and precarious crop, and so it is:—while *Earl Stimson*, of New York, that prince of corn-growers, will *average* upwards of 100 bushels to the acre in a crop of 5,000 bushels, we could point to those who do not, in many instances, make over two barrels to the acre. Perhaps these gentlemen would say, "Ah but Mr. Stimson's land is very rich, and then he manures highly." Not so:—naturally, the soil of Mr. S's. farm is very poor, being 54 per cent. of pure silex, and only 3 of the carbonate of lime; and so far from his manuring highly, he does not give more than an ordinary portion of manures. He "manures his land only once in six years, excepting the application of plaster to his corn. He allows five loads of barn yard manure, and three of leached ashes, to an acre, and this is always spread upon the surface after ploughing for the first crop, and either harrowed or ploughed in by a very light ploughing. In ploughing he never permits the plough to go deeper than three inches; the sod is turned over flat, and then rolled, it being his great object to keep all the vegetable matter on the surface." With this moderate supply of the wants of his

soil, for ten years prior to 1832, his crops of corn ranging above 5,000 bushels annually, have averaged the product stated, viz. over 100 bushels to the acre. We have not exhibited this *plan* of Mr. Stimson because it meets our entire approbation; for there are parts of it to which we would object, and yet the *result* of his labors, the safest mode of arriving at truth, would tell us that his *plan* is just suited to his light sandy soil. If left to our own judgment, we would go deeper; tho' we had to use the *substratum plough*, we would find a highway for the larger roots of the corn to draw their liquid cordial from the bosom of the earth.

The great *art*, in Mr. Stimson's case, consists in doing every thing at the right time; he never permits his corn to suffer in consequence of weeds, or a baked and parched earth—the weeds before they can possibly operate injuriously are expelled, and the earth is always kept loose and fresh around the plants, attracting moisture from the atmosphere, and drinking in the sweet and animating dews as they fall; thus preserving to the growing corn a continuous supply of wholesome, refreshing and digestive aliment. We should mention here, cursorily, that his corn rows are but 27 inches apart, that he plants the small northern corn, and leaves 4 plants in each hill, so that each acre in culture by him contains 30,300 plants.

The stating of this latter fact, points to us a *moral*, which we could wish our readers generally, and particularly those in the middle, southern and western states to pay particular attention to, as we desire that they should profit by it. It is an undeniable fact, that all *very large products of corn* have been the result of close planting. In this fact, their greater assiduity and neatness in its culture, and the application of proper manures, are we to find the true causes why the eastern farmers so far excel us in the product of this indispensable grain. While most of us have our rows ranging from 6 to 4½ feet, with but 2 plants in a hill, the more economical Yankee places his rows at from 27 inches to 3 feet, and instead of having 2 plants at each point, there are 4. Now let us see what an immense difference in product is thus brought about. Rows 27 inches either way apart, 4 plants in a hill, as we have before shown, give us 30,300 plants: Rows 5 feet either way, 2 plants in a hill, give us but 1742 hills or 3484 plants:—while the *first*, yielding a gill of shelled corn for each stalk is competent to grow 118 bushels, 8 quarts, to the acre, the *latter* at the same ratio of yield, can only give the pro-

duct of 13 bushels 16 qts.; or supposing the ears on the wide planted corn, should produce 3 times as much as that planted close, or 3 gills to the stalk, how stands the account then? Why 39 bushels 18 quarts is the product; and, indeed, if it should average a pint to the stalk, still its yield is far, very far, behind that of the *closely* planted corn; for in that event, it would reach but 54 bushels; being less than 50 per cent., of the product of the other.

We know that it will be alleged by those who have trodden in paths rendered venerable and venerated by their antiquity, and peculiar associations, that our soil will not bear such *close planting*; neither would that of Mr. Stimson, nor that of any other northern or eastern gentleman do so, if they did not in a spirit of *justice*, occasionally *return* something to the earth to comfort its bowels, and compensate it for its givings out: and surely there is no corn-planter this side the Hudson, that could not once in 6 years afford to give in the proportion per acre of 5 loads of barn yard manure and 3 of leached ashes, or their equivalents. According to Mr. Stimson's rotation of crops, and plan of improvement, his *corn crop* gets no manure whatever, except plaster on the hill. His *rotation* is:—

1. Wheat—manured.
2. Corn—plastered.
3. Flax, Rye or Barley.
4. } Clover and Herds' grass.
5. }
6. Pasture.

If by a little attention we can make 1 acre produce us what it heretofore took 4 or 5 to do, surely upon the score of economy we are bound to adopt that plan if it be not too costly: and as *close planting* is no otherwise more costly than the *wide*, except in the *extra quantity* of seed, we affirm unhesitatingly that no one should hesitate to make the proper experiment. "Ah! but if you plant too close, it will *fire* the corn." It will do no such thing; it used to be a dogma among planters, that, if ground were stirred in a *dry spell* it would *burn up* every vestige of the growing vegetables; but this absurd dictum of other days, has lost many of its worshippers: experience, common sense, and human reason, have all combined to ferret it out of the affections of many of those who once received it as oracular.

Let us hear what one of the best farmers in our country says upon this part of the subject.

In the Massachusetts Agr. Rep. John Lowell advances these clear and conclusive remarks:

"In this extraordinary [very dry] season, I had a small patch of early potatoes, planted in a warm and sandy soil, purposely to procure an early

crop; the soil was at least three quarters pure sand, mixed with some food for plants among the sand. The severe drought threatened a total loss of the crop. The potato stalks were feeble, drawn up, scarcely larger than goose quills, and I expected every day to see them wither; all hopes of a crop were abandoned. I thought they were the fair subjects of a *desperate experiment*. On one of the hottest and driest days, I gave them a thorough ploughing, passing the plough four times through each row; first ploughing two furrows from the hills, as near the roots as possible, without throwing out the seed potatoes, and then returning the loam or earth instantly back by two other furrows. No rain intervened for ten days. In three days after, the potatoes changed their color, they started afresh, as if they had received the benefit of ample showers, while not a drop had fallen. The dews, which were abundant, settled upon the new turned earth, while before the ploughing no moisture had been apparent."

This solitary fact speaks volumes and will go far to reconcile practical men to leave the *shadow* for the *substance*.

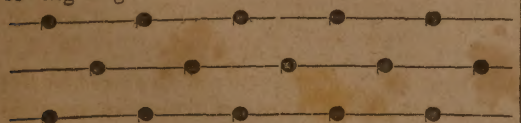
Having quoted the success of Mr. Stimson in evidence of the efficacy of close planting, we will sustain the propriety of his system by showing that several others have produced *large crops* by the same means:

Mr. Stevens, of New Jersey, near New York, averaged on 3 acres, upon each of which he placed 26,880 plants, 118 bushels of corn per acre; the distance about 5 feet one way by 8 inches in the drill.

Mr. Ludlow, of New York, raised on 3 acres at the rate of 98 bushels to the acre—his rows were 4 feet, the plants 8 inches asunder.

Mr. Lorain, of Pa. raised 91 bushels to the acre: his plan was double rows 8½ feet wide, the number of plants 20,000.

Messrs. Pratts of Madison county, New York, obtained 170 bushels per acre; they used 7 bushels of seed to the acre, the plants being subsequently reduced to the requisite number. They grew this prodigious crop 3 rows in a drill, 3 feet from centres of drills, as is represented in the following diagram:



Putting 43,560 plants on an acre, and raising 170 bushels and 5 quarts.

Judge Buel on a small scale raised at the rate of 118 bushels 10 quarts per acre.

We might enumerate numerous other persons, but will refrain from doing so, and shall content ourself with having proved the fact that the large products are the result of close planting. We shall annex a table which will be instructive, so

far as to demonstrate the certainty of a heavy yield by means of *close* and good culture, and the improbability of any *immense* results when left to the auspices of the wide culture.

These tables it will be seen, contain estimates severally ranging at 1, 1½, 2, and 3 gills of shelled corn per stalk. So far as the close planting is concerned, as the ears of the northern corn are small, we deem it prudent to say, that their yield *per ear* will scarcely ever exceed 1 1-2 gill, tho' they may sometimes reach 2 gills—the calculations, therefore, in the *two last columns* are filled up more for form sake than any thing else, except for the produce of wide planting. The large eared corn mostly grown on *wide* rows, at *wide* distances, would be likely to furnish ears having 3 gills or more of shelled corn on them. Indeed we have seen 4 gills shelled off of a single ear. For

the accommodation of such ears, we made our two last columns, and therefore consider this explanation necessary.

We ask all our readers to examine the table we have made out, with care. If they do so, they will perceive that under very rare circumstances of singular good fortune, corn planted 5, 4 1-2, or 4 feet apart either way, with two stalks in the hill, can scarcely ever exceed 40 or 50 bushels to the acre; that the number of stalks requisite to large yields, is wanting: but that by close planting, proper manuring, and culture, above a hundred bushels to the acre may be grown, allowing to each stalk only the capacity of bearing 1 gill of corn.

With these explanations and remarks, we subjoin the table, and bespeak for it all proper attention.

No. of various methods.	Distance of rows apart.	Distance of plants apart in the rows or drills.	No. of plants in a drill.	No. of hills in an acre.	No. of plants on an acre.	Product of an acre at 1 gill of shelled corn per stalk.	Product of an acre at 1½ gill of shelled corn per stalk.	Product of an acre at 2 gills of shelled corn, per stalk.	Product of an acre at 3 gills of shelled corn per stalk.
1	2½ by 2½	27 inches	4	7575	30,300	bush. 118	gals. 8 177	bush. 12	gals. 16 354
2	2 " 2½	30 "	4	8712	34,848	136	4 204	6 272	8 408
3	4 " 4	4 feet	4	2722	10,888	42	16 63	24 85	0 127
4	3 " 3	3 "	4	4840	19,360	75	20 113	14 151	8 226
5	3 " 1	1 foot	1	14,520	14,520	56	20 84	30 113	8 169
6	3 ft. " 9 in.	9 inches	1	19,360	19,360	75	20 113	14 151	8 226
7	4½ " 4½	4½ feet	2	2151	4302	16	24 25	4 33	16 50
8	5 " 5	5 "	2	1742	3484	13	16 20	8 27	16 39
9	5 " 4	4 "	2	2178	4356	17	00 25	16 34	16 51
10	4½ " 4½	4½ "	3	2153	6453	25	04 37	22 50	8 75
11	5 " 5	5 "	3	1742	5226	20	12 30	18 40	24 61
12	5 " 4	4 "	3	2178	6534	25	16 38	08 51	00 76
13	5 " 1	1 "	1	8712	8712	34	00 51	00 68	00 102
14	5 " 3	3 "	3	2904	8712	34	00 51	00 68	00 102
15	5 " 3	3 "	2	2904	5808	22	20 33	30 45	08 67
16	3 ft. " 6 in.	6 inches	1	29,040	29,040	113	12 170	02 226	24 340

Preparation of the ground.—If the ground you purpose putting your corn in is a *grass sward* or *clover ley*, the sooner you get your manure on the better. Place it in small piles at proper distances to give your field a regular portion throughout, and in order to prevent injury from evaporation, let your hands throw a few spadeful of earth over it. When you are ready for breaking ground, spread your manure and let the plough immediately turn it under, say four or five inches deep. The ploughman should take small slices, so as to be able to perfectly turn down the sod. Let the roller follow the plough, then harrow lengthwise of the furrows, taking care not to disturb the sod. This being done, let a light show-

el or other small plough, strike out a furrow, also lengthwise, and drop your seed, taking good care not to stint the number of grains you put in each hill, for it is much better to have to *pull up* corn plants than to be necessitated to *replant*.

If your ground is not a grass sward or clover ley, two ploughings, accompanied by rolling and harrowing, so as to perfectly pulverise the soil will be found infinitely serviceable, but let your last ploughing be more shallow than the first, and in this instance do not put on your manure until just before the second ploughing.

In either case, if you desire, (and who does not?) to raise a heavy crop, if you can possibly spare the manure, let a careful hand follow the

droppers, with a cart, and put a shovelful, or less, of well rotted manure, or rich mould, covering the corn with it. This will give a start not only to the germination of the seed, but will serve to push the young plant at its incipient stage, a matter of great importance. If you cannot spare this extra manure; get ten bushels of ashes and one of plaster, mix them together, and place a gill of the mixture on each hill of corn just as the plants are piercing the earth. If you have neither of these, a table spoonful of salt on a hill will be found an excellent application.

If you have lime to spread on your corn ground, and it be either a grass sward, or clover-ley, distribute it equally over the entire surface of your field before turning down the sod—it will greatly promote fermentation and consequently prepare the food for the plants. If you have no sod to turn down, apply the lime after ploughing and harrowing it in.

As soon as you discover that the corn begins to shew its head, that is before it is all up, pass the harrow lightly over the whole field. This will loosen the soil, greatly facilitate the coming up of your plants, and force them forward.

Preparation of the seed.—Soak your seed corn in a solution of copperas, saltpetre, and sulphur, twelve hours before planting, draw off the water, roll the grains in plaster. Prior, however, to rolling them in plaster if you were to put them in tar gently warmed, and diluted with water you would possibly do better. If you apprehend, however, a dry spell it is better not to soak your seed.

After culture.—The great mystery in the cultivation of corn, consists in keeping it clean from weeds and the soil loose. These can both be effected by timely use of the *Cultivator* and *hoe*. If however you purpose using the plough do it judiciously: and we would advise you not to do so after the roots of your corn are of much size, or have extended to any distance across the rows; for the injury they will receive in cuts and bruises, will more than counterbalance any good they will obtain from the ploughing. If you do plough, turn your furrow from the plant and replace it again as you come down the row: this will pulverise the soil and give start to the plant. The raising a large hill about corn is getting much out of fashion, and, therefore, it is that the *Cultivator* is all sufficient, backed by the hoe, to secure the best possible yield of corn. A slight drawing of well pulverized and mellow soil around the young plants is unquestionably serviceable, but it should not be carried to the extreme of raising a mound to expel the moisture.

A loamy soil is admitted on all hands to be the best adapted to the growth of corn, but should it be moist or situated low, it will be well to counteract the ill effects of situation by laying off your field in small lands with furrows, sufficiently deep to act as surface drains—if it lies high, your field may be ploughed flat.

It will be difficult to prescribe when you should plough, the state of the soil and growth of weeds must indicate that; you will, however experience benefit by passing the cultivator, through and hoeing the corn when the tassels first appear. Once or twice working it after this will be enough.

As soon as your corn shall have grown to the height of a few inches, you must have all the superfluous plants thinned out, leaving the strongest and most healthy plants in the hill. And as *suckers* make their appearance, you must have them carefully taken off.

Time of planting.—Without prescribing a day, it might be well to say that when the *apple* tree begins to burst its bud is a safe period for putting in your corn. This happens in different latitudes, at different periods, and therefore, it is difficult to arbitrarily fix upon days of planting. In the northern states they generally plant from the 10th to the 20th of May—in the middle from the 10th of April to the 20th of May, and sometimes later; in the south according to situation, an earlier period is devoted to this business. But every planter should bear this in mind, *that it is always best to be rather early than late.*

ROOTS.

We are particularly anxious to see the culture of roots becoming more popular with agriculturists; for we are well convinced that profit, economy and comfort, are all deeply interested in it. Such being the case, we would respectfully point out a few kinds that ought to receive favor at the hands of every husbandman. We will begin with

Parsnips.—This is one of the most valuable roots for feeding all kinds of stock that a farmer can raise; horses, cattle, and hogs, all eat them readily, and fatten upon them. Besides, there are few that yield more luxuriantly, 24 tons having been raised on a single acre; and then they are so hardy, keeping well, without deteriorating in quality in the open ground during the whole of the winter—25 lbs. of Parsnips cut up and given daily to milch cows with their hay, greatly contributes to increase the quantity and improve the quality of the milk, while they impart to the colour and flavor of butter made from the cream of cows fed on them, all that is gained by the

best pastures in May. The mode of culture is simple, and does not require much more labor than potatoes. The ground must be manured well, ploughed *deeply*, harrowed and rolled—the seed must be drilled in rows, about 15 inches apart. As soon as the plants are sufficiently strong to bear it, they must be thinned out to about 4 inches, and hand-weeded. The soil must be loosened three or four times in the course of the season with the hoe; and kept clear of weeds.

Carrots.—The same culture and treatment must be observed as for parsnips.

Time of planting.—Both of the above roots should be planted early in April if heavy crops are desirable; though any time in that month, or even up to the 10th of May will answer.

BEETS—whether the Sugar, the Common, or the Mangel Wurtzel.—With these, as indeed, all other roots, the ground must be a good loam.—Manure well, say from 20 to 30 loads to the acre, plough deeply, harrow and *clean* the ground thoroughly. The furrows to be about 27 inches apart. To secure the crop, it is best to put the manure in the drill—this is easily done: strike out a furrow, throw the manure into it, cover it over by running a furrow on either side, pass the roller or a rake over the top to smooth it down, then dibble or drill in the seed. The plants should stand about eight inches apart, keep the ground well stirred and the plants clear of weeds, and a good crop will reward your labors.

Pumpkins.—If you have not appropriated a separate piece of ground for pumpkins, plant them at intervals of about 12 feet through your corn field; with little additional trouble they may be cultivated with your corn, and will not much impair its product. The value of boiled pumpkins as early feed for your hogs need not be here dwelt upon—nor need we tell you that for your milch cows they are invaluable.

STRAWBERRY AND RASPBERRY.

THE GOOD QUALITIES OF THEIR FRUIT CONSIDERED.

Those two berries or fruits, on account of their early maturity, easy culture—delicious flavor as a desert, in any way they may be used—and healthful qualities, are universally acknowledged as favorites, and coming at a season when we stand in most need of wholesome ripe fruits, after wintering on rich meats and dry provisions, they are acceptable to every appetite.

As soon as the fruit of the strawberry is ripe and gone, that of the raspberry comes in to take their place, and are the next best fruit to eat with cream, and otherwise, where the right sorts are cultivated.

It has been a subject of surprise to me, that

there is not more attention paid to the culture of those very valuable and delicious fruits, when they are so easily raised and require so small a spot of ground to supply a family plentifully, say from ten to twenty square rods of good ground, well prepared, regularly and properly cultivated, would be sufficient in most cases for each sort of those fruits.

CULTURE OF THE STRAWBERRY.

The greatest difficulty attending the culture of this fruit, is to keep the plants bare of weeds and grass that spring up amongst them. In the commencement every care ought to be taken as a preventive; in no case, is the old saying more applicable, "an ounce of prevention is better than a pound of cure." By digging the ground two spits deep and laying the top one in the bottom, the seeds of weeds will by this means be buried so deep as to prevent their vegetating, and by top dressing with ashes or fermented manure, there will be but little difficulty of keeping the plants bare of weeds if the hoeing is regularly performed before the weeds get large.

Make the beds four and a half feet wide, with two feet alleys between them, in these plant four rows of plants, 8 to 12 inches apart, in the rows beginning nine inches from the alleys, and shovel the mould out of those alleys about two inches deep and throw it on the beds, leaving them a little rounding, especially in winter to throw off the water.

The best season for planting, is as soon after the fruit is ripe and gone as possible, until the middle of July and from the middle of September to November—they may also be planted any time when the ground is not freezing, but will require more care in watering, or if planted late will require covering with litter to prevent the frost from throwing the plants out, and under any circumstance, unless the atmosphere and ground is damp when the strawberries are planted they must be frequently watered until they appear to have taken root, and all runners must be shortened as they start from the mother plant, or else they will exhaust the crop and smother it as a weed. The sorts recommended by Lindley, one of the best practical modern writers, is the Early Scarlet, Pine Apple, Hautbois, and Alpines, and their sub-varieties,—out of which he makes his catalogue to contain 232 sorts. He, however, only recommends for a small garden 16 kinds. When the plants are beginning to bloom, lay straw or litter under the vines to keep the fruit from becoming gritty—and should dry weather set in when the fruit has begun to swell, it will amply compensate for the trouble of watering the plants freely; the evening is the proper time, where the water will remain until the next day's sun evaporates it.

RASPBERRIES.

Lindley enumerates in his catalogue 22 varieties, but only recommends the following selection for a small garden:—Barnet's Cornish, Double Baring, Red Antwerp, Yellow Antwerp, and Williams' Preserving. M'Mahon recommends the Red and Yellow Antwerp, Smooth Cane, or Double Baring, and common Red Raspberry, and Forsyth the same. In addition to the last four sorts, I would recommend Brenford's Red; the Antwerps are certainly a very superior Rasp-

berry, but north of the Potomac, they would mostly require to be carefully bent to the ground and fastened there with hooked pegs and covered lightly with straw or other litter, or earth, being rather tender to withstand our winters, but all the others are hardy and very productive.

The ground intended for planting being good or made so, and being provided with good plants and the ground being deeply and well cultivated, lay off the rows five or six feet apart and plant four feet apart in the rows, and cultivate among them so as to keep clear from weeds and grass; and as soon as the plant begins to bud cut the stalk down to the ground, and from the root will spring several suckers; preserve only 2 to 4 of them and hoe up the rest, and those preserved will bear fruit the next season. When this fruit is ripe and gone, cut down the stalks to the ground; by this time many suckers will be growing around where those stakes may have been cut from, select four or five of the best of them, situate in a suitable group around the old stock for bearing fruit the next season, dig the ground among the plants and remove all the suckers except the four or five as above; this must be done as soon as the fruit is ripe and gone—for on this depends the next year's crop being good or bad. In the fall manure them and dig it in, and in the following spring cut about one half of the stocks of each adjoining hill, tie their ends together in the form of festoons, which have a handsome appearance, and will save the expense and trouble of staking the plants and removing the old stakes as soon as the fruit they have borne is gone. Hoeing up the supernumerary suckers and manuring the plants every other year, will very much increase the quantity of fruit, as also its size and superior flavor. By pursuing the above course, good crops may be raised for five or six years, when new plantations ought to be made.

ROBERT SINCLAIR.

GEOLOGICAL SURVEY OF MARYLAND.

SEC. 1.—*Geological Examination of Calvert county, in reference to its agricultural resources.*

There is perhaps no other county in the State, the agricultural resources of which appear to have been so little known, and whose physical condition is so misunderstood as Calvert county. By most persons it is supposed to consist mostly of barren sands and sickly marshes, and to present the aspect of a long, narrow neck of land without beauty or interest. No notion can be more mistaken. The true features of the country are the following.

On its approach from Ann Arundel, as might be expected, the appearance of the country, and the character of its soil, are very much the same as observed in that county; which, in the portion referred to, is known to possess some of the most productive and beautiful farms in the State. The country is hilly. The soil mostly a sandy loam, though occasionally clayey, and generally well adapted to the growth of tobacco, oats and rye. When wooded, the prevailing growths are sweet gum, chesnut, pine, and the American poplar. These characters may be said to belong to the whole middle portions of Calvert county, and to extend as far as St. Leonard's creek. South of this creek, towards the extreme end of

the Peninsula, the soil is a stiff clay, especially on the Bay side, and in its present condition is considered valuable only for its timber, which is principally pine. On the Patuxent side, however, this part of the county offers, in the flats stretching from the foot of the highlands, a clayey soil susceptible of the highest degree of improvement. The same may be observed of those portions that extend from St. Leonard's creek to Hunting creek, that moreover were found to possess resources, presently to be enumerated, by which their productiveness might be increased to any reasonable extent. Improved by means of these resources, the flat-lands now referred to would yield abundant crops of wheat.

Ascending the Patuxent, the river farms were not found to possess the same resources within themselves; their soil too is more variable, in general more sandy; and the country more hilly and broken, the hills extending frequently to the river, presenting bluffs, or cliffs, of considerable elevation—as at Holland's cliffs. Yet in some places, as about Lower Marlborough, there are extensive flats with a well constituted soil, kind, easily improved; and productive. Beyond this, from the mouth of Hall's creek to Lyon's creek, the soil varies considerably, being in some places, as exhibited in the high banks about the Nottingham Ferry, and at the mouth of the last mentioned creek, a mixture of sand and green particles, which on examination proved to be of the same nature as the material frequently referred to in preceding reports, constituting what has been termed the Jersey marl. This article will be more fully described in another place.

But perhaps the most eligible situation in Calvert county, would be found on the Bay shore. In this direction the country is very hilly, possessing a kind soil, easily improved, generally good tobacco and oat lands, and the stiffer portions yielding tolerable wheat crops. This good soil rarely extends, however, beyond one mile from the Bay side, after which it becomes very sandy and sour, throwing up a thick growth of pine. On the richer bottoms, there is an abundant growth of oaks, sweet gum, chesnut, together with the white and yellow ash. The agricultural resources of this part of the county, which will shortly be described, are many, and easily obtained; and if to them be added the beauty of their sites, commanding an extensive prospect over a magnificent sheet of water, and the general healthiness of their location, it will be perceived that the plantations that crown the cliffs of Calvert, do not yield in interest and value to any in the State.

Before proceeding to offer some remarks on the present condition of agriculture in Calvert county, it will be proper to give some account of a great resource which it possesses, abundant in quantity, easily obtained, and yet so far almost untouched. This resource is to be found in the immense fossil deposits, constituting the shell-marl that underlie this county, also presenting themselves on a more extensive scale, and in more accessible positions than in any other section of the State hitherto examined.

Whilst in search of this marl, reasons were presented which rendered it probable that there would here be found at least two distinct deposits of marine fossils, one lying low, continu-

ous and forming the substratum of the country, the other superficial, occurring near the summit of the hills, and which, if ever it was continuous, has been in a great measure removed by the causes that have produced the present irregularities of the surface. With a view therefore of ascertaining this fact, that would materially assist in obtaining proper directions for the discovery of these valuable beds where they happened to be concealed by the superincumbent soil, a preliminary examination was made of that portion of the county lying on the Bay shore. In this direction, there are presented natural sections varying from fifty to upwards of one hundred feet in depth, at which the relative position of the fossiliferous strata to each other, and to the superincumbent soil, can be satisfactorily studied. Some of the most instructive of these sections are herewith given.

At Rock Point, the cliffs present the following geological features in the descending order, viz:

- 10 to 30 feet soil and sand,
- 30 " blue clay,
- 5 to 10 " ferruginous sandstone,
- 20 to 30 " fossil deposit, principally composed of *Pecten* (scallop,) and *Cytherea*, (improperly called clams)

At Owing's Landing, between Plumb Point and Parker's creek, the cliffs have here an elevation of about one hundred feet. The blue clay, containing innumerable marine relics, form their base, extending to about ten feet above high water mark; above this is a deposit of mud without fossils, reaching to an elevation of fifty to sixty feet, underlying the second fossiliferous stratum, seldom exceeding three feet in depth: above this again, there is the last uppermost covering of clay, sand and soil about twenty feet deep; amongst which are occasionally seen small accumulations or irregular beds of fossil shells.

The upper portions of the first fossiliferous bed, show commonly only the impressions of shells, sometimes to the depth of five feet; so that when the banks are low, by the sinking of this stratum, no fossil shells are discoverable, but most commonly the vertebræ of a species of *dolphin* can be obtained from this upper portion.

At Mrs. Roberts' landing, adjoining the preceding, the banks exhibit this upper part of the first fossiliferous bed, covered by a continuous stratum of yellow sandy clay, very uniformly six inches thick, above which is the usual deposit of clay, sand, gravel and soil, forming the uppermost portion of the cliffs and banks throughout their whole extent. The second fossiliferous stratum is here wanting; but about three quarters of a mile from the Bay shore, it shows itself at an elevation apparently corresponding with that at which it is found in the more elevated Bay cliffs.

At Capt John Beckett's also, two distinct fossil deposits were observed: one at the bottom of the deep gullies that convey the waters of the inland springs to the Bay, and containing *Pecten*, (scallop) *Perna*, *Venus*, (clam,) &c. imbedded in a blue sandy clay; the other near the top of the hills, also principally composed of *Pecten*, deposited in a red ferruginous sand.

Sections of the cliffs between Little and Big

Cove Points, exhibit the following disposition of the strata in a descending order, viz:

- 10 to 15 feet soil and sand,
- 2 " 5 " ferruginous sandstone,
- 30 " blue sandy clay,
- 20 " 50 " fossils, consisting principally of *Turritella*, *Fusus*, *Pecten*, *Venus*, &c.

At Mr. Joseph S. Wilson's landing, the cliffs, that are among the highest on the Bay-shore, exhibit the fossiliferous stratum, reaching to an elevation of upwards of fifty feet from high water mark, scallop and clams being the predominant fossils. In the upper portions of this fossiliferous stratum, the scallops greatly predominate, being in some places firmly bound together by a ferruginous cement. Large masses of these are occasionally detached, that strew the beach, and finally become indurated into a rock of considerable hardness.

Not far from this, at Mr. Samuel Turner's landing, the fossil deposit lying immediately above the clayey sand, is composed almost entirely of *Perna*, and a species of coral. The bank in this place is low.

At Dr. Thomas H. Bond's, between Governor's run and the Flag-ponds, the banks or cliffs, are elevated from sixty to eighty feet above tide, and present a continuation of the fossiliferous deposits, containing an abundance of the *Panopea reflexa*, *Perna maxillata*, *Venus mercenaria*.

This deposit rests immediately upon the bluish sandy clay, which is also fossiliferous, but presents a distinct line of demarkation with the superincumbent stratum, its constituents being closely matted together, whereas in the other, the shells are deposited in a loose sand of a yellowish colour.

But perhaps the most interesting spot at which to determine the geological features of the county, is on the north side of Governor's run, on the plantation of Mr. Frazier. In this locality the cliffs are upwards of one hundred feet high and afford a luminous view of all the strata containing fossils as well as many of the intermediary ones, thus furnishing useful directions for the research of those beds that are sought after for marl. The following section exhibit a nearly correct representation of the different strata, as to their order of superposition; but owing to the precipitous nature of the bank—almost perpendicularly elevated—it was impracticable, when visited, to obtain more than an approximation to their depth and general characters.

Section of Frazier's Cliffs, Governor's Run, N. side.

(IN THE DESCENDING ORDER.)

- 1. Soil, being a substratum of clay covered by a sandy loam, about 10 feet.
- 2. Upper fossil deposit, mostly *Perna* and *Pecten*, 4
- 3. Yellow sand, no fossils, 15
- 4. Bluish clay, with few shells much decomposed, 20
- 5. Thick bed of fossils in a reddish earth, principally *Panopea reflexa*, 10
- 6. Black earth, with few shells much decomposed, 20
- 7. Continuation of the black earth, or mud, with some shells, 5

- 8. Bed of shells, mostly *Pecten*, 3
 - 9. Clayey sand, bluish and greenish, 15
 - 10. Lowest or first fossil deposit, with a great variety of marine shells, and vertebræ of the *Delphinus*, 5
- 107 feet.

These sections, that are now given principally as indices of the marly deposits, will also serve to form an idea of the vast accumulation of marine exuvæ contained in our tertiary formations. And yet it is only the extent of these beds above tide that they display. How far they would be found to reach below the waters of the bay, there has been so far no means of determining with certainty. The only information obtained and received from very creditable and intelligent authority, is that in sinking a well to the depth of seventy-six feet on Holland's island, the level of which is nearly one hundred feet below the summits of the cliff, the following strata were traversed, viz:

- 1. Stiff clay, about 8 feet
- 2. Blue earth, 28 "
- 3. Bed of large oysters, 2 "
- 4. Fossil deposit of mixed shells, 39 "

without penetrating through it. As no shells from this deposit have been collected it is impossible to determine whether it be geologically identical or not with any of the preceding.

Having thus obtained an insight into the geological constitution of the county, ascertained the great extent of the shell marl deposits, and determined their position in reference to the superincumbent soil, it was confidently anticipated that they would be found to occur in numerous accessible positions inland. Accordingly, they occasionally lie so near the surface that their contents are turned up by the plough; sometimes they are traversed through their whole depth by the main roads; and the lowest stratum scarcely ever fails to make its appearance in the beds of the numerous small streams running either into the Bay or into the Patuxent river. In all these situations they are more or less available to the agriculturist.

Considering alone the three principal deposits of shells, the uppermost will be found to be the least abundant, and the least valuable. It is in a great measure composed of scallops imbedded in a red ferruginous sand, and although these shells are in a more advanced stage of disintegration than those of a similar kind are usually found to be, the marl which they yield, together with the surrounding material being principally sand, is found to average not more than 20 per cent. of calcareous matter. In other localities, mostly on the side of a hill, it presents large masses of a silico-calcareous rock, formed by the induration and agglutination of its constituents. A deposit of this kind, composed of *Pecten*, *Perna* and *Panopea*, occurs on the plantation of Mr. Robert Harrison of R.; and a similar one at Mr. Richard Beckett's where the high banks on the south side of Hunting creek offer a bed of marl of the same character.

The second or middle bed is that which appears to be most frequently intersected by the

roads. It was observed only in the upper parts of the county, and in the lower parts of Anne Arundel: it will be referred to again.

The main supply of marl, then is to be derived from the lowest fossiliferous deposit, consisting of a great variety of marine shells, imbedded in a clayey sand. This deposit is believed to form the substratum of the whole county, and, as already stated, almost every where occurs in the bed of the streams, even at their head waters.—It is in fact here, that the numerous springs of excellent water, with which the county is so abundantly supplied, make their issue; the loose and porous condition of the superincumbent soil, forming a natural filter through which the waters percolate, are purified, and finally arrested by the more compact beds of marl.

It is needless to specify all the localities at which the marl occurs under the circumstances that have been just enumerated, as they have been already indicated to those immediately interested in them. Suffice it to say, that scarcely a ravine has been visited, in which it was not found to occur, and mostly in situations whence it can be easily extracted. As *shell-marl* it is of excellent quality, containing from 50 to 60 per cent. and upwards of carbonate lime, with variable proportions of silica and alumine. The manner of using it will be more particularly adverted to presently.

On the Patuxent side of the county, immediately on the banks of the river, the fossiliferous deposits are of little importance as an agricultural resource. Those that might possibly be put to account are at the mouth of St. Leonard's creek, and at Holland's cliffs. At the former place the shells are formed into indurated silico-calcareous rocks; though occasionally sufficiently friable to afford a marl in the absence of more convenient sources of lime. At Holland's cliffs there is a bed composed chiefly of oysters, scallops and casts of *Perna*, at an elevation of forty feet above tide, having a substratum of clayey sand, and covered by gravel and soil of various depths. The banks in this locality have an elevation of from thirty to sixty feet and upwards, and the deposit of shells just mentioned is referrible to the second or middle fossiliferous deposit. It can hardly be used as marl. But more inland, at the heads of the creeks, and the ravines that furnish their head streams, the rich lowermost marl occurs under the same circumstances as in other parts of the county.

In thus indicating the sources whence calcareous matter may be obtained, it should not be neglected to mention another of which Calvert, like all the other counties on tide waters, is equally possessed; namely, the great accumulations of oyster-shells that are seen at the mouth most commonly of nearly every creek. The most extensive of these that may be indicated are, on the bay side, at the mouth of Fishing creek, and on the Patuxent, at Buzzard island point, Hollowing point, and at the mouth of Mill creek.

In the upper parts of the county, and likewise on the Patuxent, at the mouth of Hall's creek, there is a deposit of a bluish black sandy clay, forming the bank of the river with an elevation of from ten to twelve feet. No fossils were observed in this place; but the clay is much mixed with particles of green sand. The higher banks

at the Nottingham ferry, extending to the mouth of Lyon's creek, exhibit also a mixed green sand, forming a substratum of from eight to ten feet covered by sand, gravel and soil of about the same depth. Specimens of this mixed green sand, collected at various places along this shore, have yielded from 30 to 50 per cent. of the green particles.

It remains now to show to what uses these resources may be applied.

[From the New York Star.]

SILK MANUFACTURE.

The manufacture and culture of silk is about to be prosecuted with zeal by the Philadelphians. A large meeting has been held for the purpose of establishing a company. Nicholas Biddle Esq. who is ever ready to promote all useful enterprises, was in the chair.

The commissioners to receive subscriptions are some of the most eminent and wealthy persons of the city. They are authorised, when 1000 shares are subscribed, to purchase at once the machinery and establishment of Messrs. Upton and Jackson. The preamble to the report contains much valuable matter. In reference to the advantage and facility of the culture in this country, it says:

The mulberry trees flourish best in cultivated fields, and one of the most approved methods of obtaining the leaves for the food of the silk worm, is from mulberry hedges, which may be made, and securely used for the division of a farm; into fields, instead of the usual fences much more costly, and always exposed to injury and decay.

The periods of the year in which the silk worm is fed, and when only the attention of the farmer and his family is required for their care and management, are those in which the usual labors of a farmer are, for a great portion of those periods, not very great: and a large amount of the attention and industry which are required by the silk worm when feeding, and making the cocoon, are most properly furnished by females, and by children from 12 to 16 years of age. In the winter season, the family fireside of the farmer, now comparatively without employment, may be engaged in reeling the silk from the cocoons, a most agreeable & profitable occupation for that part of the year.

A large amount of free labor will be brought into employ, and the domestic silk trade of the north will one day rival that of cotton, rice and tobacco at the south.

In Pennsylvania there are already many hundred acres planted with the mulberry. These plantations will be increased when it shall be known that a certain market exists for the cocoons, and for reeled silk at a fair price. Small lots of cocoons are offered daily and the committee entertain the belief that in 1837, one fourth of the supply for a manufactory of a moderate extent can be obtained from American cocoons. In three or four years, a manufactory with machinery and buildings, requiring a capital of \$100,000, may be supplied with American silk.

Three hundred and ten good cocoons make one pound, and eight pounds of cocoons give

one pound of reeled silk. At that rate, the reeling being done at the manufactory, the cost of the silk will be about \$3 per pound. When cocoons are produced in abundance, the committee are disposed to believe that at 12 1-2 cents a pound, the raising of them will be as profitable as growing cotton at 15 cents per pound.

Raw Silk—At the first going off our manufactories must depend chiefly on foreign raw silk.

The present prices of foreign raw silk are—Bengal \$4.25 to \$6 per lb. China \$5.50 to \$6—Italian \$6.60 to \$7 per pound.

The amount of manufactured silks imported into the United States, in the year ending the 30th September 1835, was \$17,497,900.

MACHINERY—Silk is manufactured in France principally by adult labor but the introduction of machinery in the manufacture of silk, which is the ratio of 90 per cent. in the hundred, reduces the cost of manufacture from 50 to 80 per cent. England by the use of machinery, has become the successful rival of France, in many articles of silk manufacture. Let the ingenuity of America be applied to silk machinery, as it has been to the machinery for making cotton and woollen goods, and its success will be the same. The higher cost of adult labor in the United States, will thus be rendered comparatively unimportant.

The expenses of machinery are not heavy, as silk machinery is always light in its construction, and requires no great power to keep it in motion. A six horse power steam engine will move the machinery to manufacture two hundred pounds of raw silk per week—and a building of 30 feet in width, by 225 feet in length, 3 stories high, will be sufficient for all the purposes of manufacturing, dyeing and packing that quantity of silk within its walls.

PLAIN SILK—The estimate is made with confidence, that an establishment for the manufacture of silk into plain and ordinary articles, will cost no more than about one eighth of a cotton factory, to turn out the same number of dollars worth of work, and with equal if not greater profit.

While it is claimed, that all articles made from silk can be manufactured here, it is not considered desirable at present to undertake the making of any but plain staple goods; such as floss and sewing silk, twist and stuff for gentlemen's wear, vestings, plain ribbands, and grey silks for printing pocket handkerchiefs.

Floss and sowing silk made from Bengal silk would cost,

Raw material, say	\$2 25
Dyeing, manufacturing & waste,	1 50

Lb. of 14 oz.	\$6 75
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Those articles are now worth

Sewing Silk	10 to 11
Floss,	11 to 12

Made from American cocoons they would cost \$4 per pound. It is estimated that gray plain Silks, and white pongees can be made as good as imported from Canton by hand looms of Bengal Silk, to a profit at the present prices of the article in the market—When made by power looms, and with American Silk they will yield a profit of not less than 30 per cent.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel	90	91
White,.....	"	85	86
COTTON, Virginia,.....	pound		
North Carolina,.....	"		
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR&MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"		
Do. do. Superfine, ex.	"	10 37	10 37 1/2
SuperHow. st. in good de'd	"	10 37	10 73 1/2
" wagon price,.....	"	10	10 25
City Mills, super,.....	"	10 00	dull
Do extra,.....	"	10 00	10 25
Susquehanna,.....	"		10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.		21 50
do. in bbls.	bbl.	4 87	5 00
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,.....	"		2 75
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"		1 25
HAY, in bulk,.....	ton.		20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	
second,.....	"	14	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	62	65
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 75	
Ground,.....	barrel.	1 50	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 35	1 40
Susquehanna,.....	"		
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"		
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,.....	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"		
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.		2 30
Red, best,.....	"	2 20	2 25
fair to good 180a200 inferior,	"	1 25	1 75
WHISKEY, 1st pf. in bbls,.....	gallon.	42	42 1/2
" in hhds,.....	"	39 1/2	
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,.	100 lbs	1 75	
To Wheeling,.....	"	2 00	
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	28 30
Three fourths Merino,.....	"	42 45	26 28
One half do,.....	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,.....	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

CONTENTS OF THIS NUMBER.

Prospectus of this Journal—timely observations on appropriate objects of Spring Culture—modes of cultivating the Strawberry and Raspberry—Geological Survey of Maryland—formation of a company for Manufacturing Silk—Advertisements—Prices Current.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.		
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"		15
Middlings,.... do.....	"		15
Assorted, country,.....	"		14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.		2
CHOP RYE,.....	"		2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.		
No. 2,.....	"		
Herrings, salted, No. 1,.....	"	3 50	
Mackerel, No. 1, ———— No. 2	"	9 50	10 50
No. 3,.....	"		6 75
Cod, salted,.....	cwt.		
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	
Branch at Baltimore,.....	do	Farmers Bank of Virginia 1
Other Branches,.....	do	Bank of Virginia,..... 1/2
MARYLAND.		
Branch at Fredericksburg, do		Petersburg,..... do
Hagerstown,.....	1/2	Norfolk,..... do
Frederick,.....	do	Winchester,..... do
Westminster,.....	do	Lynchburg,..... 1
Farmers' Bank of Mary'd, do		Danville,..... 1
Do. payable at Easton,....	1/2	Bank of the Valley,.... 1
Salisbury,..... 1 per ct. dis.		Branch at Romney,.... 1
Cumberland,..... 1		Do. Charlestown, .do
Millington,..... do		Do. Leesburg,..... 1
DISTRICT.		
Washington,.....	2 1/2	Wheeling Banks,.... 2 1/2
Georgetown, } Banks, 1/2	4 1/2	Ohio Banks, generally 4 1/2
Alexandria,.....	2 1/2	New Jersey Banks gen. 2 1/2
PENNSYLVANIA.		
Philadelphia,..... 1 1/2		New York City,..... 1 1/2
Chambersburg,..... 1		New York State,.... 3 1/2
Gettysburg,..... do		Massachusetts,..... 2 1/2
Pittsburg,..... 2 1/2		Connecticut,..... 2 1/2
York,..... 1 1/2		New Hampshire,.... 2 1/2
Other Pennsylvania Bks. 1 1/2		Maine,..... 2 1/2
Delaware [under \$5].... 3 1/2		Rhode Island,..... 2 1/2
Do. [over \$5]..... 1 1/2		North Carolina,.... 3 1/2
Michigan Banks,..... 6 1/2		South Carolina,.... 3 1/2
Canadian do..... 6 1/2		Georgia,..... 4 1/2
		New Orleans,..... 6 1/2

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be *proved breeders*. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law *strictly prohibited*; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if *immediately applied for*, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,
Agricultural Agent, No. 5 South Fifth street,
Feb 28—4t Philadelphia.

GARDENER WANTED.

A single man, or one with a small family, competent to take charge of a market garden of three or four acres, may hear of a situation by applying to the editor of this paper, or to R. Sinclair Jr.
March 10

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers or sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t.

Baltimore, Md.

GARDEN SEEDS.



The subscribers are now opening a superior lot of GARDEN SEEDS, growth of 1836. The most prominent seeds received and for sale are—
250 bushels Garden PEAS, of various sorts.
150 do Dwarf and Pole BEANS.
2000 lbs. CABBAGE SEEDS,

among which are Scotch Early York, a superior cabbage; Flat Dutch, Drumhead, Savoy, Early Bullocksheart, Early French, &c.

250 lbs. CUCUMBER SEED, of various sorts, including Keene's fine long green, white spined, &c.

1500 lbs. Mason's scarlet short top RADISH SEED; yellow turnip, long white, and every other variety of Radish.

1000 lbs. Mangel wurtzel, French Sugar and Table BEET SEED.

50 lbs. Kale Seed of various sorts
200 " Carrot Seed for table and field

30 " Lettuce Seed, several finest kind
250 " Onion Seed

300 " Ruta Baga Seed
Also, Tart Rhubarb Seed, Tomato, Egg Plant, Squash,

Salsafy, Spinach, Okra, Leek, Celery, Endive, &c. &c.

FIELD SEEDS—English Perennial Rye Grass Seed; Lawn Grass; yellow and scarlet Trefoil; Lucerne; English and American Oats; Huskless Oats; Gama Grass

Roots and Seed, early and late Potatoes; 10 kinds Corn, best early and late sorts; Albany field and Cow Peas;

Clover Seed; Timothy; Herd Grass; Millet; Orchard Grass; Buckwheat; and in short every other Seed, Tool or Implement appertaining to the want of the farmer and gardener.

ROBT. SINCLAIR, Jr. & Co.
Light, near Pratt street wharf.

March 7.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100

Do. exclusive of the wheels, shafts and axle, 60

For applying the machinery to a common cart 45

For the machinery alone 40

Including the patent fee in each case. fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz. papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

SETH WHALEN, P. M.

Feb. 1837—28 Whalen's store, New York.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & CO.

mh 7 Light, near Pratt street wharf.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 47.

BALTIMORE, MD. MARCH 21, 1837.

Vol. III

IMPORTANT TO FARMERS.

The New-York Sun, on the authority of an esteemed correspondent, gives the subjoined information, believing that it must be highly useful to farmers, and would perhaps prove a benefit to the corn market generally, were it adopted. Hundreds of thousands of bushels of corn are annually destroyed by birds, (particularly the black-bird and crow,) which might be preserved by a very simple method. The birds pull it up the moment it appears above ground, and eat the seed. In order to prevent this destruction, the farmer should first soak the seed well in salt water, until the chit is just on the eve of bursting through, then turn it into a vessel of tar, made soft by warming, and stir thoroughly, until every grain is well coated, when it may be separated for planting. Work in some pounded plaster, when planting, and this seed the birds will not disturb; it will come up rank and fine, and pay well for the trouble. If the corn is not soaked well before coating with tar, it will not be apt to come up, as the tar will naturally prevent the necessary moisture from penetrating through it. This has been tried by farmers who never could get a good crop of corn in any other way, and found it to succeed admirably.

TENACITY OF THE APPLE TREE FOR LIFE.

A medical gentleman, who has recently made a tour through several of the western states, related to us the following singular instance, illustrative of the power of the apple tree to support life out of the ground.

In the month of Oct., 1835, Mr. Alex. McCoy, living near Columbus, Ohio, bought of a nurseryman on Long Island, 100 apple trees; they were then packed up, shipped via the great Erie canal and the lakes, to Cleveland, Ohio. On arriving at that point, the canal being frozen up, the trees remained there until the latter end of March, 1836, when they were sent to Columbus, Ohio, by the canal: they reached the latter place in the month of April, following. As it was presumed that the trees, which had now been out of the ground six months, were all dead, or their

vital powers so far destroyed as to render their vegetating not only doubtful, but, as was supposed, hopeless, the owner refused to receive them. In this situation they remained till May, when the agent of the canal forwarded them to their proprietor, who planted them out in his cornfield, rich limestone land, and tended them with his corn. At the period of planting, which was seven months from the time of their being taken up, the trees were partially in leaf, and notwithstanding all of these disadvantageous circumstances, 98 of them lived, only 2 of the hundred dying.

MR. BADEN'S "MARYLAND CORN."

We have inserted in another column a very interesting correspondence between Henry L. Ellsworth, Esq. Commissioner of Patents, Washington, and Thos. N. Baden, Esq., of Prince George's County, Maryland, on the subject of a very superior variety of corn cultivated by the latter. We confess we are pleased to find an officer of our government taking so lively an interest in the cause of agriculture, and for one we tender to this gentleman the sincere, though humble, homage of our thanks, and we do this the more readily, as it is not often that we see those filling high stations unbending themselves from the labor of official duties, to promote and foster objects of husbandry. And while we thus obey the dictates of our heart, with respect to Mr. Ellsworth, we must seize the occasion to say that the intelligent discrimination, and long continued perseverance, of Mr. Baden, in improving and bringing this variety of Corn to its present state of perfection, entitle him to the gratitude of every man in whose bosom beats a heart imbued with the sentiments of patriotism. For twenty-two years, he has given all the energies of his mind to the production of a result, which, though pregnant with a large sum of human comfort, had nothing to allure by its splendor—but it had *that* to animate him to his labors, which is infinitely more valuable—the consciousness that he was toiling for the good of his kind,—and while the success which has attended his efforts in increasing the productiveness of this fine variety of corn, will not fail to endear his name to his countrymen, long after he shall have been gathered to his fa-

thers, the recollection of the broad foundation of agricultural good which he has laid, will impart to the winter of his days, that sweetening influence which springs from the possession of honor gained by virtue.

The reader will have observed that Mr. Baden speaks of some seed corn which he furnished to Mr. Law, of Baltimore, to be sent to his friends, the Messrs. Gilfry of Illinois, and we are enabled by the politeness of Mr. L. to lay before our readers the following extract of a letter from one of those gentlemen, by which it will be seen that, by a computation made with care, the Baden corn yielded at the rate of 180 bushels to the acre under their culture in the rich lands of Illinois.

Extract of letter of 25th Jan. 1837, from Henry F. Gilfry, of Job's Settlement, McDonough County, Illinois.

"As we did not start from Baltimore till the middle of last April, and were not fixed here for planting the Baden Corn for a month after the proper season for planting—I regret to state, that although it produced a very abundant crop for the small quantity of seed corn we brought out, (say about two quarts), still none of it was adapted for seed, as it did not attain its full growth; I must, therefore depend on your sending me a further supply of the same description of corn for seeding the present season. What I did plant of it last season answered well for feeding cattle. The way I came by the number of bushels to the acre, was by going through it, and then over ground of a similar size, counting the average ears of corn of the one, and then of the other, from which I drew the following conclusion: that if ordinary corn yield sixty-five bushels, and average two ears to the stalk, that the Baden Corn which we planted (and none loftier ever grew in Job's Settlement,) would yield one hundred and thirty bushels to the acre, averaging four ears to each stalk. Now on four stalks taken at random, I counted eighteen good ears, and three small ears, and had I made this my data, the result would have appeared extravagant, although nearer the truth than what I have formerly stated. As advised in former letters, the yield of fodder from our Baden Corn, far exceeded any thing ever seen in this settlement by the oldest settlers."

[From the New England Farmer.]

VALUABLE VARIETY OF CORN.

HOUSE OF REPRESENTATIVES,
Feb. 15, 1837.

T. G. FESSENDER, Esq.,

Dear Sir:—I am indebted to the Hon. Henry L. Ellsworth, Commissioner of Patents in this ci-

ty, for a small quantity of Indian Corn—a description of which you have in a letter addressed to myself from Mr. Ellsworth, both of which I now enclose. The package of corn I have sent by John H. Dexter, Esq., of Boston, and will thank you to make such disposition of it as you may deem proper.

I remain, Dear Sir,
Your obedient servant,
ABBOTT LAWRENCE.

PATENT OFFICE, Jan. 30, 1837.

SIR:—Hearing of some great improvements that had been made in the common corn, I addressed a letter to Mr. Baden, a highly respectable gentleman in Maryland, to ascertain what facts I could on the subject.

His letter is very interesting, and I transmit you a copy of it. The experiment of Mr. Baden, shows most clearly what can be done to improve seeds, by carefully selecting each year the best kind raised. Theoretical opinions sustain Mr. Baden: but few experiments have been tried so successfully. What might be effected for agriculture by similar efforts?

The like efforts in improving the breed of animals, have been crowned with great success, especially in Europe. I avail myself of this opportunity to send you a small sample of the corn mentioned by Mr. Baden. I will only add, that I have conversed with several persons who have planted the "Baden" corn: and the concurrent opinion of all, sustains the statements made in the letter. I have a few samples at the Patent Office, of corn raised in this neighborhood, which has four and five ears on a stalk; and I expect soon some stalks containing six, seven and eight ears. If this corn were generally introduced, how greatly the amount of bread-stuffs might be increased, *without any extra labor*. I hope some public spirited citizens will try to improve wheat, oats, barley and other grains.

I avail myself of the opportunity to mention the introduction of Italian *spring wheat* with great success. A friend of mine, in Connecticut, raised the last year, forty bushels on an acre.—This grain is heavy; makes good flour; yields well; and the crop avoids all the danger of winter freezing. I have ordered a quantity of this corn and wheat to be shipped to Indiana, and intend to try both on the fine soil of the Wabash valley, the ensuing summer.

I am yours, very respectfully,
HENRY L. ELLSWORTH.

N. B. Be careful to plant this corn in a place by itself. When good seed is planted in a field with poor seed, the former will degenerate.

H. L. E.

[COPY OF MR. BADEN'S LETTER.]

NEAR NOTTINGHAM, PRINCE GEORGE'S }
Co. JAN. 26, 1836. }

SIR:—I received yours of the 14th, making inquiry respecting the "Maryland corn," which you understood I had raised. I have the pleasure to say that I have brought this corn to its high state of perfection, by carefully selecting the best seed in the field for a long course of years, having especial reference to those stalks which produced the most ears. When the crop was husked, I then

made a re-selection, taking only that which appeared sound and fully ripe, having a regard to the deepest and best color, as well as the size of the cob. In the spring, before shelling the corn I examined it again, and selected that which was the best in all respects. In shelling the corn, I omitted to take the irregular kernels at both the large and small ends. I have carefully followed this mode of selecting seed corn for *twenty-two or twenty-three* years, and still continue to do so. When I first commenced, it was with a common kind of corn, for there was none other in this part of the country. If any other person undertook the same experiment, I did not hear of it; I do not believe others ever exercised the patience to bring the experiment to the present state of perfection. At first, I was troubled to find stalks with even *two good ears* on them, perhaps one good ear and one small one, or one good ear and "a nubbin." It was several years before I could discover much benefit resulting from my efforts—however, at length the quality and quantity began to improve, and the improvement was then very rapid. At present, I do not pretend to lay up any seed without it comes from stalks which bear four, five, or six ears. I have seen stalks bearing eight ears. One of my neighbors informed me that he had a single stalk with ten perfect ears on it, and that he intended to send the same to the museum at Baltimore. In addition to the number of ears, and of course the great increase in quantity and unshelled, it may be mentioned, that it yields much more than common corn when shelled. Some gentlemen, in whom I have full confidence, informed me that they shelled a barrel (10 bushels of ears) of my kind of corn, which measured a little more than six bushels. The common kind of corn will measure about 3 bushels only. I believe I raise double or nearly so, to what I could with any other corn I have ever seen. I generally plant the corn about the first of May, and place the hills 5 feet apart each way, and have two stalks in a hill. I can supply you with all the seed you may need, and I suppose I have now in my corn-house, 50, and perhaps more, stalks with the corn on them as it grew in the field, and none with less than four, and some six or seven ears on them. I will with pleasure send you some of these stalks, and also some seed corn, if I can get an opportunity.

Early last spring, I let George Law, Esq'r., of Baltimore city, have some of this seed corn; he sent it to his friend in Illinois, with instructions how to manage it. A few weeks since he informed me that the increase was one hundred and twenty bushels on an acre; that there was no corn in Illinois like it, and that it produced more fodder than any other kind. I have supplied many friends with seed corn, but some of them have planted it with other corn, and will, I fear, find it degenerate.

I have lately been inquired of, if this corn was not later than other kinds? It is rather earlier; certainly *not* later. Corn planted in moist or wet soils will not ripen so quick as that which is planted on a dry soil. In the former, there will be found more dampness in the cob, although the kernel may appear equally ripe in both. In the two last years, the wet seasons have injured much corn, that was too early "lofted" or housed.

I believe I have answered most of your inqui-

ries. I hope I have not exaggerated—I have no motive for doing so. I raise but little corn to sell, as tobacco is my principal crop. Should I fail to send you some seed this spring, I will next summer gather some stalks with the corn, fodder and tassels, and all, as they grow, and send to you, that you may judge yourself of the superiority of this over the common kind of corn.

Yours, &c,

THOS. N. BADEN.

Hon. H. L. ELLSWORTH,

Commissioner of Patents, Washington City.

From the Southern Religious Telegraph.

BEEF SUGAR.

Sir:—The culture of the Sugar Beet in the United States has become a subject of great interest to our citizens; and I hope in a little time, with the aid of improved machinery, it will be in the power of every Farmer in the Middle and Southern States, to manufacture an ample supply of sugar for home consumption. In your paper of the 28d ult., you publish a communication from W. W. Sleigh to the Editor of the U. States' Gazette, upon the subject of Beet Sugar, in which the author gives it as his opinion that it will be impracticable to manufacture sugar from the Beet root upon a small scale. He says, 'An establishment will not clear its expenses, unless it be calculated to manufacture at least from two to five hundred pounds of sugar per day; so that the idea of *individuals in this country manufacturing profitably for private consumption is preposterous*. Their sugar would stand them, including labor, one dollar per pound.' In the same communication, he says, in confirmation of the above: 'The profits are incredibly increased in proportion to the extensiveness of the establishment; but no one ought to engage in this business who has not *mind* as well as *capital*.'

The scope of the above remarks go to discourage individual efforts at manufacturing Beet Sugar; consequently, none but a few have *mind* and *capital* sufficient to enable them to embark in this very desirable branch of industry. I would respectfully call upon the author to tell us what he means by *mind*. Does he desire to say that the poor laboring classes of our country have not sense enough to make Beets, and to carry on the process until the sugar is made? Or does he mean to say, that *capital* is essential to the infusion of mind, into any one who turns his attention towards the manufacture of sugar from the Beet root? At no period of our national existence, has the mania for stock companies been so rife, and I may add, so alarming as at the present day. In every direction petitions are multiplying for charters to monopolize almost every interesting branch of business. Yes, petitions are made in New Jersey and probably in New York at this time for corporation powers and privileges, to cultivate the Beet, and manufacture sugar, and I should not be at all surprised if the Bakers in the city of Richmond become initiated into the secret, that the common people have not mind and capital enough to bake bread for domestic purposes! and prefer a petition to the legislature, for a charter to bake bread!!

We have only to look to Great Britain to ascertain the consequences of monopolies. Almost every branch of trade is made over by charter to

privileged companies--there is the Southern Company, the East India Company, and a host of others all preying upon the vitals of the laboring classes to the community, who according to Mr. Sleight, have not *mind and capital* enough to get away from the grind-stone. The tendency of chartered companies is to make hewers of wood and drawers of water of the poor. Now, Mr. Editor, I do not profess to be an adept in the Beet sugar business at all, and all I aim at is to keep those Big Bugs of our country who profess to have both mind and capital, from forestalling public opinion as to one interesting branch of industry, and placing an *Incubus* upon the common farmer.

In order to give another view of the subject, from men of high respectability, who were specially engaged in getting information from France upon the subject of Beet Sugar, permit me to make a few extracts. In an agricultural paper published in Albany, called the *Cultivator*, for July last, we have the views of Le Ra De Chaumont, a French writer, who has been engaged in the manufacture of Beet sugar from the reign of Napoleon to the present. 'But, sir, while I was admiring here, in the splendid establishments of this new industry, (Beet sugar factories, their fine machinery, and the chemical improved processes,) I was lamenting that the small proprietor, or the farmer, could not employ directly his produce by manufacturing himself. I am but just now perfectly satisfied that he can do it, and that with very inconsiderable expense, and without hiring any help, but simply with that of his family. I will quote the particular instance of a farmer in the north of France, who has received a medal from the Royal and Agricultural Society, for having established on his farm one of the first small beet sugar manufactories, where he makes daily, without any assistance but that of his family, 100 pounds of sugar fit for family use, without further preparation. The whole house room consecrated to that purpose, is a room of sixteen feet square, and cabinet 10 feet by 12. Now, Sir, you can undoubtedly appreciate at once all the advantages that a farmer can reap in cultivating and manufacturing the sugar Beet.' In the *Cultivator* for August, page 90, another interesting communication is given upon the subject, going to establish the fact that men of little capital, and a portion of common sense, can manufacture Beet sugar profitably upon a small scale. 'The Royal Society of Agriculture in France, awarded in April a premium to Mr. Decerf, for having established a *small manufacture of Beet Sugar*; where he prepares daily, without other aid than that of his family, 137½ pounds of sugar, ready for immediate family use.'

I have looked over my files of the *Cultivator* for another case more directly in point if possible than the above, but have failed to find it. It was the case of a poor man in France, who made use of a *currycomb* to cut to pieces the Beet. The result of this man's labor as well as I remember, was about equal to the cases already given. Now what shall we make of Mr. Sleight's opinions compared with the facts resulting from the labors of men in humble circumstances, but honest, sound minds? I hope the time is not far distant when every farmer in Virginia will prove to the world that he has mind and labor capital enough to make Beet Sugar, without the aid

of a charter. Men are more disposed to live by their wit than their labor: hence the propensity of men to unite together, with the aid, too often, of a *fictitious capital*. These men find it to their interest to decry competition from the common people.

J. McD.

It is stated that extensive formations of solid rock salt have been discovered in Rall's county, State of Missouri, which at no very distant period promise to be of incalculable value to the owners of them. In one instance, it is said, in penetrating the earth to the depth of three hundred feet, a stratum of salt was pierced the thickness of which was found to be sixty feet. The salt water which arose from the bottom of the perforation ascended as high as fifty feet above the surface of the ground. It is said to be more potent in its effects than the Congress Spring at Saratoga, and to be much sought after by men and animals that have drank of it. In the vicinity of this spring there are many others to which the deer resort in large numbers.—*Baltimore American*.

WILSON'S MOWING MACHINE.

GRASS AND GRAIN CUTTER.

Albany, February 13, 1837.

Sir—In this era of invention, when almost the entire of mechanical labor is transported to labor saving machines, it cannot but be a subject of regret, to see the Agriculturist, whose business is not only the most ancient, and the most honorable, but the most necessary of all employments, still compelled to perform his task by the strength of his arm and the sweat of his brow.

Actuated by a hope to contribute my mite towards the agricultural interest of my happy country, and considering the labor of mowing grass and cutting grain, to be, perhaps, the severest as well as most important branch of the farming labors, and that they require to be performed at a critical period, and therefore subject the employer to pay exorbitant wages, I have, at the expense of much study, and of much time and money spent in experiments, invented a machine to perform those branches of labor by the power of horses or oxen. In this arduous undertaking, I have at length succeeded so far, I believe, as to give entire satisfaction to all who have witnessed the operation of my machine; and those operations have been submitted to the inspection of many of the most competent judges of the subject.

With the attendance of one man to guide, and the power of two horses or oxen, it will cut a swath of six feet wide and as fast as the man and team can travel, and by common industry, will accomplish at least the labor of twelve men. It will cut the grass smoother and cleaner, and lay the swath infinitely more regular, than can be done by hand. The knives are kept sharp in its own operation, by which, much time is saved.—The machine is perfectly simple in its construction, and by no means liable to disorder. It will scarcely be necessary to add, that its usefulness, as it respects grass, will be chiefly confined to large, and smooth meadows, and the extensive prairies of the west. It will readily be seen, that to introduce this machine into such use as shall

benefit the public, and remunerate the inventor, will require the assistance of gentlemen of influence and capital, and especially of those who know and feel the importance, and consequent necessity, of improving the system of American agriculture. With these views, therefore, I take the liberty of addressing you on the subject, in the hope of your influence in effecting so desired an object.

I am, Sir, with respect and esteem,

Your obt. servant,

ALEXANDER M. WILSON.

P. S. The cost of a single machine, with the right to use the same on your own lands, is two hundred and twenty-five dollars, delivered at this place.

A machine is now in complete order, and ready at all times for examination, at Constitution Hall, No. 16 Church-street.

All communications addressed to me, No. 409 Sth. Market-street, Albany, will meet with prompt attention.

THE APPLE ORCHARD.

In a mistaken zeal to eradicate the seeds of intemperance, we are afraid that some, by destroying their apple orchards, are not only diminishing their innocent family comforts, but are seriously impairing their means of honest farm profits. We do not advocate the orchard on account of the alcohol its fruits afford on distillation—such a practice we deprecate; nor will we urge *teetotalers* to cultivate the apple for cider, if they deem this liquor hurtful—though we still adhere to the "steady habits" of our New-England ancestry, in taking a glass of this racy beverage with our dinner—we will not advocate the orchard for the *liquor* it affords, but for the *food*—the beef, pork, milk, &c., into which its fruits can be readily transformed.

For the family, apples may be made to contribute alike to health, to pleasure, and to economy, and greatly to diminish the consumption of more costly food. As desert fruits, they are surpassed but by few in quality, and by none in durability; while in the culinary department, they afford a grateful repast, baked, boiled, roasted or fried; and, to borrow terms from the Cook's book, may be served up, with rice, flour, &c. in black-cap, charlotte, cheese-cakes, compotes, dumplings, fritters, festoons, floating islands, fool, fraze, glazed, in jelly, marmalade, pancakes, pies, puddings, preserves, poupeton, soufflet, in water, and a la Turque. In all these forms, we believe the apple is perfectly guiltless, and in most of them may be indulged in by the robust and the delicate, and by the rich and poor.

In the economy of the farm, apples are no less serviceable. Every kind of farm stock feeds and fattens upon them. They serve as a substitute for corn in the piggery, for oats in the horse stable, and for slops in the cow-stall. They were evidently destined for the comfort of man; and because they are capable of being converted to a bad use, shall we, for this reason, reject the many benefits they are calculated to afford us? Because bread corn is convertible into alcohol, is it less worthy of our care and culture as an article of food? Those alone who abuse the

gifts of providence, are obnoxious to public morals.

Our orchard, although a young one, is of great value to us. The early droppings of fruit were gathered by our pigs, and they contributed much to fit them for the fattening pen; subsequently by boiling them with small potatoes, for fattening, they have enabled us to save a good portion of our soft corn, which in ordinary years has not sufficed for finishing our pork, say 40 or 50 bushels to deal out to our store shoats. Our orchard has enabled us to dispose of some 50 barrels of choice winter fruit, and to manufacture nearly as many barrels of cider, and it is now, in the form of apple pomace, adding greatly to the products of our farm. On 1st December, we began to feed the pomace to seven milch cows, and have continued to feed them with a common wheel-barrow full per diem, and the effect has been to increase the quantity of milk nearly fifty per cent. The pomace has undergone but slight if any fermentation.

The great indifference to orchards, we have no doubt, arises from an ignorance of the many advantages which they are capable of affording to the farm, and to the bad quality of the fruit which is generally cultivated. The nutritive properties of the apple depend upon the quantity of saccharine matter they contain, or the specific gravity of their juice; and the difference in flavor, and in their cooking properties, are not sufficiently regarded, and not generally known. We have probably the finest varieties of this fruit, of any country in the world, which come to maturity in succession, so as to afford a supply for the family the whole year; and yet probably not one family in a thousand enjoy them, or know of the existence of the better half.—*Cultivator*.

BUTTERNUT SUGAR.

MR. EDITOR:—While the attention of many of our northern farmers seems to be turned to the cultivation of the sweets of life, and while they are making experiments with the French Sugar Beet, Apple Molasses, Potato Sugar, Potato Molasses, Sugar from wheat starch, &c. &c., it may perhaps be useful to communicate to the lovers of domestic sweets, a piece of intelligence with which I have some reason to think the public in general are unacquainted.

It is said by one of the authors of "the Dispensatory of the United States of America," printed in Philadelphia, in 1834, that the *Butternut tree*, sometimes called *White Walnut*, *Oil nut*, &c., (the *juglans cinerea* of Eaton and others, and the *juglans carthartica* of Michaux) if punctured just before the unfolding of the leaves, furnishes a richly saccharine juice, from which sugar may be obtained, nearly, or quite as good, as that obtained from the sugar maple.

I have myself made no experiment with the sap of the Butternut tree, but several intelligent farmers with whom I have conversed, assured me that in the spring of the year, the tree is abundantly juicy; but they were not aware of the saccharine nature of the juice or sap of the Butternut tree.

In conversation to-day with an intelligent gentleman, from New Hampshire, he told me that a

clergyman of his acquaintance, and of undoubted veracity, related an experiment by which he obtained in one season, from one butternut tree, 23 pounds of sugar, which was much whiter than that obtained from maple. But my informant added, that the tree was a large one, and that it was tapped in so many places, that the tree was killed by the severity of the operation. The death of the maple tree, he said, was also sometimes produced by too severe tapping. The injury to the tree he says may be avoided by tapping with an auger instead of an axe; by tapping in but few places in one season; and by fitting a plug of green wood into the auger hole, and driving it in tight, as soon as the sap has done flowing. If this course is taken with the tree, he says the bark grows immediately over the wound and closes it up, and no part of the tree dies in consequence of the tapping.

Mr. Editor, though in general I am not fond of publishing mere hearsay stories, in matters of science, till I have seen them proved by actual experiments, and have them to be true, yet in this case I think the testimony of the very respectable authors of the "Dispensatory of the U. S. of America," with the addition of the collateral testimony before mentioned, make an amount of evidence which is worthy of some attention. And as the dispensary before mentioned is not in the hands of the public generally, nor even in the hands of all of the faculty, and as in so large a work an isolated fact, more important to the farmer, than to the physician, is liable to be overlooked or neglected; and as the time for tapping the trees and making sugar from them, (if made it can be) is near at hand, I have concluded to send you these hasty lines at the present time, that you may print and circulate the information they contain, early enough to benefit the sugar makers in the sugar making season of the present year.

The Butternut, or white Walnut, is a kind of tree which is of very rapid growth, and may probably be cultivated to any extent which is desired; the fruit is agreeable to many, and is a good remedy for the whooping cough, if eaten freely. The extract of the bark of the root is a useful cathartic, and the wood is valued for its beauty, its durability and its exemption from injury by insects. I have frequently seen a kind of white sugar, where the sap had dried into the stump, on the end of a log of hickory wood, but whether any variety of hickory would at the proper season afford sap enough to be worth attention, I cannot tell at present.

If any of your correspondents who happen to see this communication, are in possession of facts on this interesting subject, and should be disposed to send them to you for publication, I should feel equally indebted to them for letting us know the truth; whether the truth confirmed or contradicted the statements which I have seen, and which I have already related to you. For though I should be glad to be instrumental in making the public more extensively acquainted with an important sweet, the knowledge of which may be useful to our common country, yet if this communication should only draw forth the publication of facts, by means of which the truth in relation to this subject may be ascertained and

publicly circulated, my object in writing will be accomplished.

Respectfully yours,

ASA M. MOLT.

East Haddam, Conn., Feb. 19, 1837.

[From the Charleston Mercury.]

Agreeably to the invitation of the Committees of Rice Planters from several Parishes, a meeting was held at SEYLE's on Monday, 27th February. The meeting was organized by calling N. HEYWARD, Esq. to the Chair, and W. A. CARSON, Esq. appointed Secretary. Mr. H. DEAS offered sundry resolutions, which were seconded by E. J. PRINGLE, Esq. and on motion were referred to a Committee of seven to be appointed by the Chair with directions to report upon the same and matters connected therewith, at a meeting of Rice Planters to be held in Charleston, on the 2d Monday in June next. The Committee were directed to issue Circulars to the Rice Planters of the different Parishes, inviting them to call meetings and send Delegates to the above named meeting.

The same committee were also directed to consult the Chamber of Commerce and ascertain whether Rice in bags would be acceptable to purchasers.

The following Committee were named by the Chair: John Bryan, Chairman: H. Deas, R. A. Carson, K. F. W. Allston, James Rose, James Cuthberth, Wm. W. Smith.

HOW TO COOK A POTATO.

To boil a potato seems simple enough, and yet we can scarcely ever find it to be done. At the tables of the great a good one is never seen; because if not eaten the very moment it is boiled, the potato is worth nothing, and also because the refinement of peeling helps to destroy the savor. Another mistake is to serve this vegetable in a covered dish, whereby the steam condensed by the cover falls upon the potato and it becomes sodden and waxy. Do not buy washed potatoes from the shops or Covent garden. Get them with the mould about them, and do not wash it off until just before you use them. If they are steeped in water long before they are boiled they become stale and watery. Put them into plenty of cold water with some salt. When they are about half boiled throw away the water and pour fresh boiled water upon the potatoes from a tea-kettle, adding to it some salt. Let it boil up briskly.—When you have ascertained with a fork that the potatoes are very nearly done throw in a cupful of cold water to check the boiling. The water will soon boil up again and the potatoes will crack. Let the water then be drained off, and the potatoes served up immediately in an open dish with the skins on. The water upon them will evaporate the instant they are in the dish. They must be eaten at that moment—in ten minutes their fine flavor would be gone.—*Magazine of Domestic Economy*.

A Large Turnip.—The Augusta (Geo.) Sentinel states that a turnip raised in Jefferson County of that State, measured three feet four inches in circumference.

GEOLOGICAL SURVEY OF MARYLAND,

[CONTINUED.]

On the present condition of Agriculture in Calvert county and the means of improving it.

It has already been stated that most of the soil of Calvert, which is a sandy loam, is kind and easily improved. When properly tended, it produces tobacco of a fine quality, heavy crops of oats, to which it is peculiarly well adapted as well as to corn and rye. Good wheat crops have also been raised on the stiffer and more clayey soil that occur in some parts of the county, but more especially on the flat lands of the Patuxent. Hitherto, the root crops, for other than domestic consumption, have been totally neglected, and tobacco, though the most laborious and the most expensive to cultivate, is considered the most valuable product, and is the staple commodity of the county.

The only means of improving the soil that has as yet been resorted to, is in the use of plaster and clover, which on the greater number of plantations, has been a very efficient one, and has contributed largely towards increasing their products. It is fortunate that this system, however tardy in its adoption, should have gained favour with the planters of Calvert, with whom it is now very generally adopted; but serviceable as it has been, it is confidently asserted that the county possesses in its marl beds, a mineral resource of infinitely more value. It may be a matter of immense importance therefore to its agricultural interest to prove this assertion.

There are several things to be considered in the use of plaster that diminishes its value, when compared with lime or marl: namely, its cost, its limited application to certain soils, its uncertainty as dependent upon seasons, and the want of permanency, not only in its effects, but in its efficacy after a prolonged application.

From the best information that could be obtained, it appears that the *plaster system* imposes upon the planter an annual expenditure of no less than *two dollars* for every acre under cultivation. True it is that this expense is more than repaid by the increased productiveness imparted by its use to the soil; but there is no desire to depreciate its value, considered abstractedly. On the contrary, it has already been admitted to have rendered important services; and by no means is it intended to advise its abandonment *altogether*, nor even to give it to be understood that one system is to supersede entirely the other. It will be sufficient to show, for the present, that *marling* under existing circumstances, is the *less expensive*, and the *more profitable* operation. This will more satisfactorily appear, by considering the other comparative disadvantages of the plaster system.

Every planter knows that plaster cannot be applied to all soils, not even to those which under ordinary circumstances, he is far from considering sterile. Thus it will not answer on very sandy soil, nor on very stiff clayey soils, nor on wet lands.

Plaster will not act beneficially in very wet seasons, nor during a prolonged drought.

The effects of plaster in the quantity usually employed are experienced only by the crop to which it has been applied: every renewal of the crop requiring a repetition of the mineral.

Finally it has been confidently asserted by intelligent farmers is some portions of the State, where the use of plaster and clover dates as far back as fifty years, that it is no longer found to be so efficacious upon the same lands that formerly received from it the greatest benefits; hence the preference now given in those parts to lime.

Marl on the other hand *judiciously applied*, is not subject to any of these drawbacks. It will improve every kind of soil, at least all those that occur in our tide-water districts; it will benefit them all under any circumstances of position or seasons, (without, of course, meaning to imply that it will protect them from all inclemencies of the seasons,) it may be considered as permanent in its effects; and the expense for applying it once for all is not more than every enterprising planter in Calvert is already willing to incur annually for the use of plaster and clover seed.

Mr. Ruffin, whose experience in the use of shell-marl, has been so extensive and so valuable, to those who possess this resource, has furnished us with the cost of marling one hundred and twenty and a half acres, as follows:—

Preparatory work, including uncovering of marl, cutting and repairing the necessary roads, and bringing corn for the team—digging, carrying out, and spreading six thousand eight hundred and ninety two loads (four and a half heaped bushels,) of marl, \$250 38

At the average rate of fifty-seven and a half loads, or two hundred and fifty-nine bushels per acre, the average expense was, to the acre 2 08.

In reference to this operation, he says, 'In eighteen hundred and twenty-eight, at Shellbanks, a very poor, worn and hilly farm, I commenced marling, and in about four months, finished one hundred and twenty and a half acres, at rates between two hundred and thirty and two hundred and eighty bushels per acre. The time taken up in this work, was five days in January, and all February and March, with two carts at work—and from the fifth of August to the twenty-seventh of September, with a much stronger force. I kept a very minute journal of all those operations, showing the amount of labour employed, and of loads carried out during the whole time.' 'At Shellbanks, the difficulties of opening pits were generally less—the average distance shorter, and the reduced state of the soil, and the strength of the marl, made heavy dressing dangerous. These circumstances all served to diminish the expense to the acre. The difficulties, however, at some of the pits, were very great, owing to the quantity of water continually running in, through the loose fragments of the shell—and almost every load was carried up some high hill. Taking every thing into consideration, I should suppose that the labor and cost of this larger job of marling, will be equal to, if not greater, than the average of all that may be undertaken, and judiciously executed, on a farm having plenty of this means for improvement, at convenient distances.' Now, on most of the plantations of Calvert, inland, the marl beds lie in quite accessible positions, making their appearance at the spring heads, of which

in many places there is one for every field. Thus situated the pits are easily opened, may be drained with facility, and the marl extracted from them in a dry state, which greatly diminishes the labor of its transportation. Under these circumstances the expense for raising and distributing three hundred bushels, cannot exceed that which was incurred by Mr. Ruffin, in his operation at Shellbanks, and is only by a trifle more than the cost of plaster and clover seed.

In other situations greater difficulties in obtaining the marl, will doubtless present themselves that will occasion a corresponding increase in the labour and expense of applying it; but wherever it can be *conveniently* reached, it will be found amply to repay the trouble and cost that may be incurred.

As the mode of using the marl, with reference to the soil of Calvert county, and its actual agricultural condition, as well as to the nature of the material itself, which was found to contain from fifty to sixty per cent. of carbonate of lime, it was thought advisable to direct the application of only three hundred bushels to the acre, recommending it to be hauled out upon a clover lay, not too closely grazed. It should be spread upon this lay as equally as possible, as in the case of stable manure, and then turned in with the plough. Putrescible matters of any kind will enhance its good effects; hence, whenever these can be procured they should be employed in conjunction with the marl; for it is a mistake to suppose that the marl is a *manure* of itself. This error which arises from its effects having been treated under the general appellation of 'calcareous manures,' has often been the cause of great disappointments in its use, many persons believing that its efficacy could not be more satisfactorily tested than by applying it to the most barren spots. The opinion entertained of the mode of action of carbonate of lime, which is an essential constituent of marl, is, that its presence is necessary in a soil for several reasons: First, it improves the texture of the soil, stiffening a loose one, and actually lightening a stiff one; whereby the soil becomes more appropriately retentive of moisture, and of the soluble compound resulting from the decomposition of vegetable or animal substance that serve as food, or true manures to plants.—Secondly, it has a tendency to check, indeed it effectually prevents the growth of acid plants as the sorrel; and if it be conceived to do this, according to the suggestion of Mr. Ruffin, by the combination of the lime which it contains with the oxalic acid in the soil, the presence of which favours the growth of the sorrel, then it is probable that the disengagement of carbonic acid gas consequent upon this interchange of constituents, does in reality form a *pabulum* for the forthcoming crop, one of the elements of this acid, namely carbon, entering largely into the composition of all plants. Thirdly, it is not at all improbable that it acts as a *septic*, or decomposer, of the vegetable matter contained in the soil, reducing it into a soluble condition, in which state it may be taken up as nourishment by the growing crop. Finally, carbonate of lime is an essential constituent of a good soil.

From these considerations it follows, that the planters of Calvert county would find it much to

their advantage to turn their attention for the time being, exclusively to their marl beds. The operation of marling, where the material is so abundant, of so good a quality, and so easily obtained, will be found much cheaper than the continued use of plaster and clover seed, and will impart a higher degree of fertility to the soil, as well as a condition of permanent improvement, which cannot be obtained by any other means. It must be borne in mind too, that all kinds of soil may be improved by marl; and an additional inducement to use it, for those who are partial to the plaster system, should be found in the fact, that soils upon which plaster will not produce its customary effects, are rendered fit to receive it kindly, by the addition of calcareous matter.

Reverting once more to the method of employing the marl, it is believed that three hundred bushels per acre, spread over a field upon which there would be a sufficient growth of grass or weeds, and it is in such places that the efficacy of the marl is to be tested, would satisfactorily demonstrate the value of the operation. On a lot, for example, in course of preparation for tobacco, were the quality just indicated of marl to be mixed with the usual amount of stable and other manures, without being prepared to say what would be its effects upon the tobacco crop, it may be confidently asserted, that the next grain crop would be little less than double, so as amply to repay all expenditure of labour, time or money.

It has been asked, what effect will marl have upon tobacco? May it not, in increasing its quantity, cause a deterioration of its quality? Can it be expected to increase both the quality and the quantity of the crop?

Although not in possession of any facts that would authorize positive answers to these questions, there is no cause whatever to suspect that the application of calcareous matter to the soil, can be otherwise than beneficial to tobacco as well as all other crops. One fact indeed, has been collected, which, if it does not go to show that the presence of lime improves the quality of the tobacco, at least proves that it does not interfere with it. The planters of Calvert, as well as those of Prince George and Ann Arundel, have remarked the occurrence of a salmon coloured soil, in patches, as it were, lying near the top of the hills, off of which they very generally cut their highest price tobacco. Well this soil corresponds with the uppermost fossiliferous deposit referred to under the preceding head. Accordingly, it very frequently contains a quantity of broken scallop and other marine shells; it is very sandy, so that in some places the fragments of the embedded shells have become silicified throughout, whilst in other spots no shells at all are seen. The soil now alluded to contains very little alumine, or clay, its body being apparently due to the oxide of iron, which exists in it in an unusually large proportion, and to which it likewise owes its colour. The analysis of one hundred grains of this earth, taken from a spot where there was no appearance of shells, yielded three grains of lime, and as much as twenty grains of oxide of iron. In those places where the shells themselves occur, sometimes even in considerable quantity, a larger proportion of

lime would of course be found. But, as tobacco planters have frequently expressed the opinion that the plant *cures* of the same colour as the soil producing it, and the quality in this instance depending much upon its peculiar colour, which the soil receives from the oxide of iron and not from the lime, the fact of the presence of lime is adduced to show only that it can have no injurious tendency.

Whatever may be the effects of lime upon tobacco, there is no longer any doubt that it greatly increases the grain crops; and that it will convert soils now totally unfit for wheat, into abundant producers of this most valuable commodity, a result which would be in vain expected from the plaster system. It is thought that the agricultural interests of Calvert county, would be benefitted in more ways than one, if the tobacco plantations were transformed into productive grain farms.

Besides the direct application of marl to the soil, an important use to which it may be put, is for the *preservation* of the stable manures. The opinion entertained by some agriculturists that animal manures should be first suffered to ferment, or *rot*, before they are committed to the soil, is believed to be in direct contradiction, at least with theory. Instead of permitting these manures to undergo fermentation before they are applied to the soil, they should on the contrary be buried as soon as possible; because the gaseous emanations from them, to which they owe their fertilizing properties, and that serve as nourishment to the plants, by being suffered to escape freely into the atmosphere, would deprive them of all their value. The principal object of amending a soil by marl, is to enable it to retain longer, and yield up gradually, as vegetation proceeds, its nutritive gases. It is advisable, therefore, that a liberal use of marl be made in the farm-yard, in the cow-pens, hog-pens, and, in fine, wherever animal or vegetable matter is likely to accumulate, hereby becoming incorporated with the putrescent matter in those places, and thus forming a compost, the soluble and gaseous compounds produced in the process of putrefaction may be protected, and retained for a longer period than when exposed to the desiccating effects of the atmosphere. On the Bay side where the sea ooze is by some planters much used, and where the marl also occurs in abundance, there is not the least doubt but that a mixture of both would be highly beneficial. Wherever again facilities present themselves, as in many places on the Patuxent side of the county, for procuring the mud, ordinarily highly charged with vegetable matter in an incipient stage of decomposition, that collects at the head or on the margin of creeks, a mixture of the two would be attended with the best results. The experience of farmers on the Eastern Shore of Maryland invariably prove this.

A liberal, but the same time judicious employment of these resources would no doubt occasion in a very short time a manifest improvement in the agricultural condition of Calvert county. This would first show itself in a greater increased productiveness of the grain crops, and would in a measure remove the present almost entire dependence of the planter upon his tobacco crop. Corn, oats, rye and wheat would be more exten-

sively cultivated with a view to profitable returns. The great facilities that exist for sending almost every kind of produce to a market, would also cause more attention to be paid to the root crops generally, and the inhabitants of Calvert, having nothing to envy from their fellow-citizens in other parts of the State, would find themselves prospering under an ameliorated state of things, of which they have not hitherto seemed to think their lands susceptible. No more opportune moment than the present, perhaps, can have presented itself to introduce some expedient reform in the rural economy of the lower counties, when the only efficient labour that can be applied to the raising of their staple commodity is being fast removed, and that it is becoming imperiously necessary to substitute for it a less irksome system of cultivation. The suggestion, however, is submitted to the discretion of those more immediately interested.

Before quitting the subject of the application of marl or lime, it may not be amiss to allude to another inducement to its general use, suggested from various quarters, and which must necessarily have some weight with the residents in all the tide-water counties of the State. This allusion has reference to the putative effects of lime in preventing disease.

Mr. Ruffin, in the second edition to his 'Essay on Calcareous Manures,' has furnished a number of facts derived from the correspondents to his valuable publication, 'The Farmer's Register,' which lend great support to the opinion that marl has the property of purifying the air and contributing to healthfulness. He states his own experience in the following terms: 'My principal farm, until within some four or five years, was subject in a remarkable degree to the common mild autumnal diseases of our low country. Whether it is owing to marling, or other unknown causes, these bilious diseases have since become comparatively rare. Neither does my opinion in this respect, nor the facts that have occurred on my farm stand alone. But,' he adds, 'in most cases where I have made inquiries as to such results, nothing decisive had been observed.' There is no doubt but that marl or lime freely used, wherever, around the dwelling, around the out-houses, the barn and the stables, in the farm-yard, pens, &c. a quantity of putrescent matter is always gathered together, would have the effect of diminishing the noxious exhalations from such places, and thereby contribute to the greater health of the adjoining residences. The subject deserves the especial attention of planters and farmers in all the lower counties.

Inquiry has often been made, whether there are not some superficial indication of the presence of marl at a short distance below the soil; such as the appearance of some peculiar growth, or of peculiar plants: and the frequent occurrence of a really anomalous vegetable formation, on the fossiliferous deposits of both the Eastern and Western Shore, has led many persons to regard it as a true index of the vicinity of that valuable material, applying to it the name of *marl weed*. The plant referred to is however, well known, and its very remarkable aspect would naturally attract the attention of any one. It is a leafless weed, the stem of which is single, erect, very

rough and regularly articulated, each articulation raising from a tubular sheath spotted with black to its base and summit. It is the *Equisetum hyemale* of botanists, which is imported from Holland under the name of Dutch rushes, and is much used by the whitesmiths and cabinet-makers of Europe in polishing metals and wood, and is there quite in demand for scouring pewter and wooden utensils in the kitchen. As it is found in many places where marl is not likely to occur—affecting deep loamy soils, especially those that have been gained from rivers—it is of course no evidence of the presence of marl, but may serve to indicate the goodness of the soil produced by a proper admixture of calcareous matter with the sands and clays of the tertiary formations.

There is not, and there cannot be expected, to be found any such superficial indications of the deposit of fossils constituting the marl-beds of Calvert county. It is sufficient to know that these beds occur almost every where, and that the lowermost fossiliferous deposit actually constitutes the substratum of the whole county, making its appearance wherever denudating causes have stripped it of its covering of sand, gravel and soil. In some places, where the surface of the marl has been for a long time exposed to the action of a stream of water, the fossils which it contained have been washed out, leaving only their impressions. The principal character of the marl are in such cases obliterated; but by digging a few feet into the bed, the shells themselves will invariably be found, and the deposit will then yield a material inferior to none other.

In its sincerely hoped, that enough has now been said to induce the people of Calvert to turn their serious attention to the early fruition of these resources; and it belongs to the more wealthy planters of the county to commence such operations as in their results will exhibit, in the most satisfactory manner, all the benefits that may be derived from them. The value of lime to the soils of Calvert county has already been demonstrated in the good effects obtained by the Hon. Judge Morsell, with the use of the shells from an Indian bank, upon his estate. His example has been followed by Mr. James Morsell, at the head of Hungerford's creek. An Indian shell bank of great extent occurs also, as previously stated, at Hollowing point, the enterprising proprietor of which has expressed a willingness to dispose of its contents to his less fortunate neighbours. These shells could very profitably be distributed along both shores of the river either in their present condition, or in the more valuable form of lime into which they might be converted at little expense.

As yet the efficacy of the marl has not been tried in the country; but there is every reason to believe that the many intelligent planters who have now been made acquainted with its existence in places whence it may be easily extracted, as well as with its value, will not long suffer it to remain neglected. It is much to be regretted, that in the only instance in which a trial of it was about to be made with praiseworthy zeal, the gentleman engaged in carrying on the operations, Mr. Geo. Wilkinson, should have found himself compelled to desist by ill health. In another year, however, there will no doubt be fur-

nished many examples of the great benefits which the material is destined to confer upon the soil of Calvert county, bringing about a highly improved condition in agriculture of this much favoured portion of the State.

GARDEN SEEDS.

As success in gardening depends much on good seeds, a few hints on raising, gathering and preserving them may be of importance to the young and inexperienced gardener. Plants intended for seed should be carefully cultivated during their whole existence, and especially while their seeds are ripening. They should be located in such a manner, as that those of the same species cannot intermix and produce deteriorated varieties. To prevent mixing, they must be set at considerable distances apart, as even Indian corn has been known to mix at the distance of three hundred yards. It is utterly impossible to preserve varieties, cucumbers, melons, squashes, pumpkins, &c. in their purity, if they are permitted to flower and ripen their seeds in the same garden—the seeds of two varieties of the same species of plants, should not, therefore, be attempted to be raised in the same garden at the same time. It is this disposition to mix and degenerate that renders it difficult for seedsmen to raise a complete assortment of seeds on their own grounds, unless they are very extensive.

The most luxuriant and perfect plants, and such as arrive at maturity the earliest in the season, should be selected for seed. They should be permitted to remain in the garden until the seed is perfectly ripe; and should then be gathered and cleaned in clear weather. If any moisture remains, they should be exposed to the rays of the sun until they are perfectly dry, and then be put up in bags or boxes and secured from the depredations of rats, mice and insects, and the action of severe cold. As a general rule, new seed is to be preferred to old on account of its germinating quicker and producing a more vigorous growth; but good seeds, gathered and preserved in the foregoing manner, will retain their vitality as follows:—

	YEARS.		YEARS.
Asparagus,	4	Marjoram,	4
Balm,	2	Melon,	8 or 10
Basil,	2 or 3	Mustard,	3 or 4
Beans,	1 or 2	Nasturtium,	2 or 3
Beets,	8 or 10	Onion,	3
Borage,	2	Parsley,	5 or 6
Cabbage,	6 or 8	Parsnip,	1
Carrot,	1 or 2	Pea,	2 or 3
Celery,	6 or 8	Pumpkin,	8 or 10
Corn,	2 or 3	Pepper,	5 or 6
Cress,	2	Radish,	6 or 8
Cucumber,	8 or 10	Rue,	3
Caraway,	4	Ruta Baga,	4
Fennel,	5	Salsafy,	2
Garlic,	3	Savory,	3 or 4
Leek,	3 or 4	Spinaige,	3 or 4
Lettuce,	3 or 4	Squash,	8 or 10
Mangel Wurtzel,	8 or 10	Turnip,	3 or 4

Some gardeners prefer old seeds of cucumbers, melons, squashes, &c. &c. to new, on account of their running less to vines and producing larger crops of fruit; but on this point we cannot speak experimentally. The vitality of seeds is easily

tested, and they ought never to be sown, in any considerable quantity, without it. When divested of their covering, such as will germinate will sink in lukewarm water, while such as have lost their vitality will float on the surface.—*Silk Culturist*.

IS LYE A PREVENTIVE OF SMUT?

Let those that doubt lye being a preventive for smut, try the experiment—or, if they have log heaps upon their fallows where there is a liability to smut, observe the crop and sow smut where such heaps were burnt, if they can. One great fault in sowing wheat is, farmers do not sow it thick enough, especially if sown late. People here are getting into the habit of sowing two and a half bushels to the acre, if sown late, be the soil what it may.—*Monthly Genesee Farmer*.

When will discoveries cease? Cane has been in a great measure superseded by the beet for the manufacture of sugar, and now we are informed that chesnuts are come into play for the manufacture of that useful article in France. The French chesnut, it will be borne in mind, is much sweeter and richer than the American, and such is the proportion of saccharine matter contained in it, that as much as fourteen per cent. of sugar is said to have been obtained from it, a yield greater than the average product from the beet.—*Baltimore American*.

CLAIRMONT NURSERY,

3 Miles East of Baltimore.

ROBERT SINCLAIR, Senr.



Proprietor, hereby informs his friends and the public that he expects the weather will be suitable to commence filling orders about the middle of the present month.

And owing to the winter setting in so unusually early, it is believed prevented many persons from ordering who intended to have done so, and even many orders that did come, had to remain unfilled until the spring, consequently his stock remains good for most articles as advertised last fall—particularly Apple, Peach, Plum, Quince, English Raspberry, Strawberry, Gooseberry, Currant, Grape Vines, three years old, and Cuttings of the same, a few hundred *Morus Multicaulis*, and other Mulberry Trees, Ornamental shade Trees, many kinds, and several of them of large size, Balsam Fir, or Balm of Gilead, and other evergreens, and a superb collection of Garden and China Roses, and other beautiful Flowering Shrubs, Honey Suckles, Vines and Creepers, Rhubarb for tarts, &c. See printed and priced catalogues, to be had of the proprietor, gratis, or of R. S. jr. in Light street.

Also will be delivered to customers, strong thrifty potted Plants; about the middle of May, a splendid assortment of double Dahlias, consisting of about one hundred varieties, carefully selected from among the best and latest importations. Printed catalogues will be furnished as above.

A few more pair white Turkeys, and 2 male Peacocks
Feb 14

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN,

Feb. 14

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,	bushel.	1 75	—
CATTLE, on the hoof,	100lbs	6 50	8 50
CORN, yellow,	bushel.	90	91
White,	"	85	86
COTTON, Virginia,	pound	—	—
North Carolina,	"	—	—
Upland,	"	18 1/2	20
Louisiana 20a21—Alabama	"	18	21
FEATHERS,	pound.	50	—
FLAXSEED,	bushel.	1 62	1 75
FLOUR&MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	10 37	10 37 1/2
SuperHow. st. in good de'd	"	10 37	10 73 1/2
" wagon price,	"	10	10 25
City Mills, super,	"	10 00	dull
Do extra,	"	10 00	10 25
Susquehanna,	"	10	10 50
Rye,	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. in bbls.	bbl.	4 87	5 00
GRASS SEEDS, red Clover,	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,	"	—	2 75
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	—	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
HOGS, on the hoof,	100lb.	7 75	8 50
Slaughtered,	"	7 25	7 75
HOPS—first sort,	pound.	16	—
second,	"	14	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	C2	65
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 75	—
Ground,	barrel.	1 50	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	1 35	1 40
Susquehanna,	"	—	—
TOBACCO, crop, common,	100 lbs	3 50	4 50
" brown and red,	"	4 50	0 00
" fine red,	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,	"	5 00	10 00
" yellow and red,	"	6 00	8 00
" good yellow,	"	8 00	12 90
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,	"	5 00	8 00
Virginia,	"	7 00	14 00
Rappahannock,	"	—	—
Kentucky,	"	8 00	14 00
WHEAT, white,	bushel.	—	2 25
Red, best,	"	2 00	2 20
fair to good 180a200 inferior,	"	1 20	1 60
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price,	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,	"	2 00	—
WOOL, Prime & Saxon Fleeces, ...	pound.	50 to 60	30 32
Full Merino,	"	45	50 28 30
Three fourths Merino,	"	42	45 26 28
One half do.	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,	"	38	40 26 28
Howard st. Flour, sales limited, receipts very light.			

CONTENTS OF THIS NUMBER.

Steep for corn—tenacity of the apple tree for life—account of Baden Corn—Cultivation of the Beet Sugar—Wilson's Mowing Machine—value of an Apple Orchard—butter nut Sugar—meeting of Rice Planters—recipe for cooking Potatoes—a large Turnip—Geological Survey of Maryland—vitality of Garden Seeds—prevalence of Smut—saccharine properties of the chestnut—advertisements—prices current.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders, do.	"	—	15
Middlings, do.	"	—	15
Assorted, country,	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,	"	20	28
CIDER,	barrel.	1 00	1 25
CALVES, three to six weeks old...	each.	4 50	6 00
Cows, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	—	1 93
CHOP RYE,	"	—	2 25
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,	"	—	6 75
Cod, salted,	cwt.	—	—
LARD,	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	Farmers Bank of Virginia 1
Other Branches,	do	Bank of Virginia,
MARYLAND.		Branch at Fredericksburg, do
Banks in Baltimore,	par	Petersburg,
Hagerstown,	3a	Norfolk,
Frederick,	do	Winchester,
Westminster,	do	Lynchburg,
Farmers' Bank of Mary'd, do		Danville,
Do. payable at Easton, ... 3		Bank of the Valley, 1
Salisbury, 1 per ct. dis.		Branch at Romney, 1
Cumberland,	1	Do. Charlestown, do
Millington,	do	Do. Leesburg, 1
DISTRICT.		Wheeling Banks, ... 2 1/2a3
Washington, }		Ohio Banks, generally 4a5
Georgetown, } Banks, 1.		New Jersey Banks gen. 2a2 1/2
Alexandria, }		New York City, 3a
PENNSYLVANIA.		New York State, 3a3 1/2
Philadelphia,	3a	Massachusetts, 2 1/2a3
Chambersburg,	1	Connecticut, 2 1/2a3
Gettysburg,	do	New Hampshire, ... 2 1/2a3
Pittsburg,	2a2 1/2	Maine,
York,	3a	Rhode Island, 2 1/2
Other Pennsylvania Bks. 1 1/2a2		North Carolina, 3 1/2a4
Delaware [under \$5] ... 3a4		South Carolina, 3 1/2a4
Do. [over 5] ... 2a 1/2		Georgia,
Michigan Banks,	6a	New Orleans, 6a7
Canadian do.	6a	

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth street, feb 29—4t Philadelphia.

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 13. Editor Farmer & Gardener.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers or sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,
March 7. 4t. Baltimore, Md.

GARDEN SEEDS.



The subscribers are now opening a superior lot of GARDEN SEEDS, growth of 1836. The most prominent seeds received and for sale are—

250 bushels Garden PEAS, of various sorts.

150 do Dwarf and Pole BEANS.

2000 lbs. CABBAGE SEEDS,

among which are Scotch Early York, a superior cabbage; Flat Dutch, Drumhead, Savoy, Early Bullocksheart, Early French, &c.

250 lbs. CUCUMBER SEED, of various sorts, including Keene's fine long green, white spined, &c.

1500 lbs. Mason's scarlet short top RADISH SEED; yellow turnip, long white, and every other variety of Radish.

1000 lbs. Mangel wurtzel, French Sugar and Table BEET SEED.

50 lbs. Kale Seed of various sorts

200 " Carrot Seed for table and field

30 " Lettuce Seed, several finest kind

250 " Onion Seed

300 " Ruta Baga Seed

Also, Tart Rhubarb Seed, Tomato, Egg Plant, Squash, Salsafy, Spinach, Okra, Leek, Celery, Endive, &c. &c.

FIELD SEEDS—English Perennial Rye Grass Seed; Lawn Grass; yellow and scarlet Trefoil; Lucerne; English and American Oats; Huskless Oats; Gama Grass

Roots and Seed, early and late Potatoes; 10 kinds Corn, best early and late sorts; Albany field and Cow Peas;

Clover Seed; Timothy; Herd Grass; Millet; Orchard Grass; Buckwheat; and in short every other Seed, Tool or Implement appertaining to the want of the farmer and gardener.

ROBT. SINCLAIR, Jr. & Co.
March 7. Light, near Pratt street wharf.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100

Do. exclusive of the wheels, shafts and axle, 60

For applying the machinery to a common cart 45

For the machinery alone 40

Including the patent fee in each case. fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz. papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

Feb. 1837—29 SETH WHALEN, P. M.

Whalen's store, New York.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & CO.
mh 7 Light, near Pratt street wharf.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 48.

BALTIMORE, MD. MARCH 28, 1837.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, MARCH 28, 1837.

VALUE OF CORN STALKS AS PROVENDER.

No one who may not have essayed an experiment to that effect, can form any idea of the vast amount which may be saved by the practice of a system of enlightened economy on a farm. Nor can he form any just estimate of the valuable purposes to which many things which are cast away as almost useless, may be applied. We were very forcibly struck with the force of these propositions a few days since, on seeing the fine condition of a *Devon* cow, that we purchased for a gentleman in South Carolina, and which had been subsisted during the whole of the past winter on *corn stalks* and *ruta бага*. Ninety out of a hundred farmers, throw their corn stalks into their barn yards, to be trodden under foot by their cattle, and the custom has become so universal that any one who should deviate from the rule would, in many neighborhoods, be looked upon as an innovator, who had sinned beyond the saving influence of repentance. When an individual, however, is found possessing the moral courage to rise superior to those prejudices which have been hallowed by time, they deserve not only the full fruition of the profits and advantages of their improvements, but are entitled to the thanks of the community. The cow in question, we bought of Mr. *Richard Caton*, and on inquiry as to her keep through the winter, learned that, she, together with some 60 or 70 others, of which his beautiful herd of *Devons* consists, had been exclusively fed on the articles we have before named. Heretofore they have, each winter, been generously served with timothy, or clover hay, and Swedish Turnips; but with a view of testing the value of the corn-stalk as a provender for cattle, and of being

thereby enabled to sell his hay, he cut his stalks, the which, together with turnips, he submitted to the action of steam, and has had the gratification to find his most sanguine expectations more than realized. His stock has not only eaten their new fare with avidity, but have thriven well, having come through the winter in high health and condition, and are now in as good order as the majority of beef cattle. The *Devons* it is true are a thrifty race, easily kept, and will maintain flesh upon less feed than almost any other breed; but it is equally true, that the process of steaming restores so much of the saccharine matter to the stalks, renders them so easy of digestion, as to make them at once as palatable as they are nutritious. Hence there can be no doubt of the great economy in this disposition of them, because, besides returning to the earth an equal portion of manure, they serve the two fold purpose of substituting other and more saleable provender, and of sustaining stock fully as well, if not better than the best hay, be the kind whatever it may.

Let us see how far an acre of stalks will go. If this quantity of ground in corn will yield one ton of fodder and tops, we set it down as a demonstrable fact, that it will give two tons of stalks; so that any given quantity of land will furnish a hundred per cent. more of the latter than the former.

If it should be asserted that the trouble of cutting the stalks is an objection to their use, we would remark that there are always a sufficient number of inclement days throughout the winter, when hands cannot be occupied out of doors, to perform all the labor requisite to prepare them, without its bearing in the least as a tax upon time. Of the expense of a cutting box, we will not speak, as no farmer or planter, without detriment to his interest can be without one, and should it be said that steaming is an onerous preparation, and that the fixtures are costly, we would reply, that it is neither one nor the other. An ordinary sized pot, fitted up in a furnace, with sufficient number of oblong boxes, with tight covers, to hold the requisite quantity of provender is all the fixtures that are necessary; 40 gal-

lons of boiling water poured upon half the number of bushels of cut stalks, would in one hour cook and render them fit for use. Surely then, there is no individual worthy of pursuing the noble calling of a cultivator of the earth, who would maintain such objections to the impairment of his real and substantial interests.

A CORN MEAL RUSK.

Among the many delicacies in the form of bread, which render the enjoyment of breakfast so acceptable, we know of none more deserving of notice than the one prepared according to the following recipe :

Take 6 cupsful of corn meal, 4 of wheat flour, 2 cupsful of molasses, and 2 tablespoonsful of *sal aractus*, mix the whole together, and knead it into dough; then make two cakes; bake them as you would pone, for three fourths of an hour, and you will have one of the most grateful descriptions of bread that ever graced the table.

THRESHING MACHINE.

We were present some days since to witness the operation of a new threshing machine patented by Mr. Tyler, of Massachusetts; we were highly pleased at its performance, and think it an effectual labor-saving machine; though we are not aware that there is any thing very novel about it, unless the application of its balance wheels, to its peculiar objects, be so. But whether there be any or not, we think it eminently calculated to facilitate the business of getting out grain. With the requisite number of hands for turning, feeding, clearing off the grain, and packing away the straw, we presume, from what we witnessed, that it would be able to get out from 75 to 100 bushels of rye or wheat, and from 100 to 150 bushels of oats in a day. This would be sufficient for all except large grain growers, and these might be accommodated by either increasing the dimensions of the machine and giving it horse power, or by multiplying the number of the machines. It will be seen, from what we have written, that the power used in its propulsion is *man*; that, however, could be easily changed, as it is adapted to the application of any other. From its compact and convenient

size, it could be worked in a room of very moderate proportions, and we have no hesitation in declaring that we think it a valuable addition to the labor saving family of agricultural implements.

CARROT FIELD CULTURE.

We had a conversation a few days since with a *Yankee Farmer*, on the above subject, and being pleased with the course of his remarks, we prevailed on him to commit them to writing, in the hope that as the season is now approaching when this fine vegetable may be sown, we might, by bringing the topic to the notice of our readers, induce some of them to try the experiment of raising a crop for feed for their milch cows. The *Parsnip* too, should command attention; the same mode of culture will serve for them as for the carrot, with these exceptions—that the drills should be about 18 inches apart and the plants stand about 4 inches asunder.—Thus planted in the month of April, in suitable soil, manured with well rotted manure, or a compost of spent ashes and mould, kept clean and hoed three times, they would yield from 500 to 1,000 bushels of roots to the acre, which might be left in the ground all winter to be dug up as wanted for feeding.

To those who desire to have *butter* in winter, possessing all the virtues of that article made from cows fed on *May* pastures, it will be only necessary to say that by a very little trouble they may realize their wishes.

The communication alluded to above will be found subjoined.

[For the Farmer and Gardener.]

The carrot flourishes best on a loam or sandy soil. The ground should be prepared by ploughing very fine to the depth of ten or twelve inches, fine manure, in quantity sufficient for common crops should be ploughed in, and the ground harrowed merely sufficient to level it, the seed should be sown in drills from twelve to fourteen inches apart; a machine made for the purpose is the best for sowing: four or five plants to a foot is sufficient to be left to come to maturity; a good day for planting corn is a good day for sowing carrot seed. The crop is usually from four to five hundred bushels to the acre. There is not a more profitable crop for feeding stock, raised in the N. England States, than the carrot, where the soil suits the crop; with a little more labor, you will get as many bushels of a much richer vegetable than the potatoe. One experiment has been made, by putting six cows into the stalls in December and feeding five with corn-meal and hay, and one with corn-meal and carrots, and when slaughtered, the one fed with carrots was pronounced the fattest and handsomest beef. They are equally good for milch cows,

increasing the quantity, and adding color and richness of flavor to the butter, but little if any, surpassed by the best pasturing. They can be profitably used in many other ways by a farmer.

[From the Germantown Telegraph.]

OATS.

There is a difference of opinion among farmers as to the proper time for sowing oats. While some contend that it is best to sow as soon as the frost is out sufficiently for the land to be worked, others insist on a different course, and choose not to sow until the ground has become quite dry and warm. It may be a fact that late sowed oats in some and perhaps in most instances, produce a greater quantity of straw than those early sown, and it may be and probably is true in as many instances, that the grain is proportionably lighter, so that if weight of grain is the prime object, that course of procedure as it respects sowing, is best, which is most likely to produce the desired result.

There seems to have been a general failure in the crop of oats through this part of the country the past season, there being but few instances, were they are so heavy by one-third as they have been in other years, when no calamity has befallen them.

Notwithstanding the general failure, I had as good a crop of oats the past season, as in any former year, having over one hundred bushels, from little more than two acres of ground, weighing thirty-three lbs. per bushel. Such being the fact, it is a question with myself and others, what should be the cause of my obtaining a better crop than any other farmers in the neighbourhood. That which to me appears as the probable and only cause, is early sowing. Although my ground was in no better condition than land in general, I sowed my oats several days earlier than other farmers in the vicinity.

There were several fields contiguous to mine, where the soil and cultivation were not essentially different, but which were sowed a few days later, which in every instance failed to produce a middle crop. I have always been in the habit of sowing my oats as soon as possible after the ground had become settled, believing it to be the better way, and observation and experience the past season, have only strengthened my belief, that such a course is a correct one.

A FARMER.

With respect to the time of sowing oats, there is no such thing as affixing a day. Every farmer must be guided by his own locality. As a general rule it is always safest to sow them as soon as the ground will admit of ploughing without danger of baking from being too wet. The sooner they are got in the better, as oats delight in a cool and moist atmosphere, and hence it is that the Irish and English oats are generally heaviest in Great Britain, while in this country, the northern or such as are grown in the Glades, take the precedence. If oats be sown at the proper period, and are followed by any thing like a fair, or tolerably

fair season, there is but little doubt of their making a remunerating crop. It is, however, a lamentable fact, that with us they are most generally assigned the poorest spot on the farm, and are left unaided by manure to struggle to maturity, and when reaped if not as good as the seed were, they are libelled with the imputation of having degenerated, whereas the true fault lies with the grower, in not having given them a fair chance of perpetuating themselves in perfection. Although they will grow in any soil, like all other members of the grain family, they grow best when nourishment is given them, and the farmer who expects first rate oats without laying a proper groundwork for their growth, does most certainly lie under a most fatal delusion.

As to the quantity of seed, if sown without clover or other grass seed, less than $2\frac{1}{2}$ to 3 bushels to the acre should not be sown; where sown with grass seeds 2 bushels is enough, and the ground would be the better of two ploughings.—[Editor *Farmer and Gardener*.]

The last advices from Europe represent a depression in the price of cotton, owing doubtless to the derangement of the money market.

SOWING CLOVER SEED.

Extract of a letter from a subscriber at Cayuga: "As the time for sowing clover seed is approaching, some note in your paper of practical farmers on that subject may be of some service, and save some trouble of complaining of the loss or failure of their expected crop of clover. For several years past I have practised sowing my seed the last of March or first of April, when we have frosty nights and thawing days. The mornings then are generally still—the surface of the ground is raised by the spears of ice formed during the night—and if the seed is cast on the ground such mornings, it finds its way through the crevices occasioned by the ice beneath the surface of the earth sufficiently deep to protect the young plant from the droughts of April or May, by which our clover crop is frequently destroyed, if the seed is sown when the surface of the earth is compact. Since I have practiced in this way, I have not failed in a single instance of having a full crop of clover."—*Genesee Farmer*.

Remarks by the editor of the *Farmer & Gardener*.

There can be no doubt that a large quantity of clover seed is lost by means of its perishing on the surface, whether sown during the frosty nights and thawing days, or at a more late period of the season, but this might be obviated if the time of sowing was delayed until the ground was tolerably dry. As soon as it is cast upon the ground a light harrow should be passed over the field; the seed thus sown would be covered and placed in a situation to vegetate to a certain

ty. Immediately after harrowing, the ground should be rolled. It may be objected to this that the young wheat or rye plants will be dragged out of the ground and injured, but on the other hand whatever might be drawn out by the harrow, would be replaced by the roller, and the increase from cultivation and tillering would very far exceed the injury spoken of. Indeed, all rye and wheat fields, whether sown with grass or not, would derive benefit from undergoing this process, as there can be no question that the stirring of the ground would add greatly to the growth of the plants; for there is no truth which holds better, than that every thing that vegetates is benefited by cultivation.

RISE AND PROGRESS OF AGRICULTURE.

The antiquity of this art is undoubtedly beyond that of all others. From the earliest accounts of the eastern nations, we have reason to think, that agriculture had been understood by them to considerable perfection: seeing they were always supplied not only with the necessities, but the greatest luxuries of life.

As soon as the descendants of Abraham were settled in Palestine, they become husbandmen, from the chiefs of the tribe of Judah to the lowest branch of the tribe of Benjamin. High birth or rank did not at that time make any distinction; for agriculture was considered as the most honorable of employments.

The Chaldeans, who inhabited the country where agriculture had its birth, carried that valuable art to a degree of perfection unknown in former times. They cultivated their land with great assiduity, and seem to have found some means of restoring fertility to an exhausted soil, having plentiful harvests in succession; on which account they were not obliged, as their predecessors had been to change their situation, in order to maintain a sufficiency for themselves and their numerous flocks and herds.

The Egyptians, who, from the natural fertility of their country by the overflowing of the Nile, raised vast quantities of corn, ascribed the invention of the art of agriculture to Osiris. They also regarded Isis, their second deity, as the discoverer of the use of wheat and barley, which before grew wild in the fields.

It is also related of the ancient Persians, that their kings laid aside their grandeur every month to eat with husbandmen. This is a striking instance of the estimation in which they held agriculture: for at that time other arts were practised among the people in great perfection, particularly those of weaving, needle-work, and embroidery. The precepts of the religion taught by the ancient magi, or priests, included the practice of agriculture.

The Phœnicians, better known in scripture by the name of Philistines, were remarkable for their attention to, and skill in agriculture; but finding themselves too much disturbed and confined by the incursions and conquests of the Israelites, they spread themselves through the greater part of the Mediterranean Island, and carried with them their knowledge of the art of cultivation.

The Athenians taught the use of corn to the rest of the Greeks. They also instructed them to cultivate the ground, and to prepare it for the reception of the seed. The Greeks soon perceived that bread was more wholesome, and its taste more delicate than that of acorns and the wild roots of the field. Hesiod was the first we know of among the Greeks who wrote on this interesting subject. He lived about nine hundred years before the Christian era.

The ancient Romans esteemed agriculture so honorable an employment, that the most distinguished Senators at their leisure intervals applied themselves to the cultivation of the soil. Numa Pompilius, one of their kings, was much distinguished for his skill in agriculture; and such was the amiable simplicity of those times, that their greatest warriors and legislators were often called from the active labors of the field to the highest offices of the State. Regulus, the celebrated Roman General, when in Africa, requested of the Senate to be recalled, lest his farm might suffer for want of proper cultivation in his absence; and the Senate wrote to him for answer, that it should be taken care of at the public expense while he continued to lead the armies. Cato the censor, Varro, Virgil, Columella, and other distinguished Romans wrote on the subject of agriculture.

In China, a day is still annually appointed when the Emperor goes in solemn procession to a field, where he shows his sense of the inestimable benefits of agriculture by undertaking for a short time, the laborious occupation of directing the plough in person.

Previous to the establishment of the Romans, the cultivation of the soil was but little understood in Britain. By their assistance, however, it experienced considerable improvement, inasmuch that the Britons were enabled annually to export large quantities of grain. Subsequent to this period, it has been continually advancing in its progress, and has now attained a high degree of perfection. Societies have of late years been formed for the purpose of encouraging this and other useful arts; and a plan has been proposed for introducing the study of agriculture into schools and making it a necessary part of national education.

In the year 1576, a period of difficulty and distress, France began to pay particular attention to this important subject. Prize questions were annually proposed by the academies of Lyons, Bordeaux, and by the society instituted for the improvement of agriculture in Brittany. About this time, it was also greatly encouraged in Russia, Sweden Denmark, Germany and Italy; in the last mentioned country, a private gentleman, about 30 years ago, left his whole fortune to the establishment and support of an agricultural society.

Whether we consider agriculture as a means of procuring as well the necessities as the luxuries of life, of providing a security against the aggravated calamities of scarcity, famine and disease; or of engaging the mind in active and extensive pursuits of general knowledge, it is one of the most important and useful arts which have employed the attention of mankind. Its theory is, in a great measure, dependent on several branches of science, such as national history, chemis-

try, experimental philosophy, and mechanics, all of which may be successfully applied to its advancement; and without a competent knowledge of these, it cannot be properly understood. Its practical part, however, may be carried on, independently of scientific experiments. No person therefore need be deterred from attempting any improvements, because he is not conversant with the more abstract parts of physical knowledge.

The flourishing state of manufacture is greatly dependant on that of agriculture; because the price of those commodities obtained by labor, is not only closely connected with that of the necessities of life, but some of the most considerable articles of manufactures are originally supplied, by agricultural productions, such as wool flax, hemp, rape-seed, tallow, &c.

The successful advancement of the rural art depends on two circumstances: the one, its improvement by discovery or invention; the other a mere extensive practice of such improvements when fully demonstrated. The former is effected by the contrivance of more perfect machines and implements of husbandry, which facilitate the progress of labor; the introduction of new articles of profitable culture, and the most advantageous mode of treating those which have already been cultivated, though in a defective manner. The latter, namely, the practice, relates not only to future improvements, but likewise to those which, though generally known, have been either wholly neglected, or adopted only in peculiar places.

[From the Rockville, (Md.) Journal.]

DOMESTIC SILK.—We publish in to-day's paper, the Message of his Excellency, Gov. Veazey, to the General Assembly, upon the culture of the Mulberry and the manufacture of Silk.

We have heretofore expressed our opinion upon this subject, and our decided approbation of Mr. Roberts' valuable publication. We are pleased to see that it has been made the subject of a special message, and hope such Legislative action will be had, as immediately to give patronage to the work in question, and by widely disseminating the useful information which it contains, thus foster and encourage a most useful and profitable branch of domestic industry. It is stated in the message, "that in most of the States north of Maryland, and particularly in Connecticut and Massachusetts, the silk business has been prosecuted on an extensive scale for several years past, and with uniform success." We believe there are few counties in Maryland, where some advances have not been made in this laudable undertaking; and these experiments "unaided by science or experience," have, as far as we have heard, been very successful.

There is now for sale at a store in this place, sewing silk, of excellent quality, and various colors, manufactured by several young Ladies of this neighbourhood, from worms fed on the common mulberry. We have frequently seen in various parts of the State, specimens of "domestic silk" which in richness of colouring, fineness of quality and beauty of texture, would bear comparison with the best of foreign manufacture; but when considered as evidences of the ingenuity, industry, and we may say, patriotism, of our fair country-women, are more to be admired than the tyrian purple of the robes of royalty.

GEOLOGICAL SURVEY OF MARYLAND,

[CONTINUED.]

SEC. 3.—*Geological examinations made in Anne Arundel county.*

The principal examinations that have been made in this county, were for purely scientific purposes, the details of which will be given at another time. The remarks in reference to them will be mainly confined, at present, to an indication of the fossiliferous deposits that may be used as marl, and an account of some localities where other materials, considered to be likewise applicable to useful purposes have been discovered.

It was to be supposed that the marl beds of Calvert would not cease to make their appearance with the limits of that county, and accordingly, they are found to present themselves under the same circumstances that have been already described, in the lower parts of Anne Arundel.

The cliffs at Herring bay, of much inferior elevation to those of Calvert, have for substratum a greenish sand of variable depth to the water line, the upper portions of which contain an irregular stratum of a grayish black sand filled with fragments of organic bodies, among which may be recognized sharks' teeth, fragments of bones, and silicious casts of a jet black color belonging to some spiral and other shells. The greenish sand itself contains fossils, but so decomposed, that their characters could not be determined. They appear to belong mostly to a species of oyster, perhaps analogous to those hereafter to be described as occurring on the Patuxent, at Milltown. It is not believed that this material can be employed advantageously as marl. The account of it is given simply to indicate the nature of what appears to be the lowest fossiliferous deposit in the part of the county now under examination. That such a substratum exists very generally, extending through the portion of country lying between the Chesapeake bay and the Patuxent, and even through that which lies between this river and the Potomac, is shewn by the recurrence of a similar deposit in several places where the excavation of a running stream has penetrated to a sufficient depth to exhibit it. A remarkable and extensive deposit of this character was seen on the headwaters of Lyon's creek, south side. It consists of a stratum about three feet in depth, containing the same species of oyster just referred to, covered by one embracing numerous silicified casts of small spiral and bivalve shells. An analogous deposit was met with on the Patuxent at high water mark, and others were described in the report of last year, as occurring in several places in Charles county, at the heads of creeks emptying into the Potomac.

In the very centre of the peninsula, a deposit of the same kind was reached in the sinking of a well. The account of this excavation, as furnished by Dr. J. S. Owen, on whose plantation it was made, is both interesting and instructive. The different strata that presented themselves were, in the descending order, as follows:

1. Rich black vegetable mould, 1 foot.
2. Tough clay, 12 feet.
3. Sand with very little gravel, 3 "
4. Clays of various kinds, distinct layers, 10 "

5. A dark ash-gray bed, very compact and firm, requiring the pick-axe for some few feet, and fracturing into large flakes: then sandy, somewhat firm, the colour a shade darker, and continuing so without any marked difference to the bottom of the well, 46 feet

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72 feet.

Six feet within this dark ash-gray bed, and thirty-two feet from the surface, there were found two vertebrae, and parts of several ribs of a species of *Delphinus*, the remains of which so very generally accompany the other marine exuviae in our fossiliferous deposits. It may be well to remark in this place, that a species of *dolphin* (*Delphinus luca*) is at present a frequenter of the waters of the Chesapeake Bay, several of them having been caught in the course of the last spring, and one of them exhibited in the Baltimore Museum, under the name of *Baluga whale*. Vegetable matter was found a few feet below the bones in considerable quantity, but exceedingly decayed. These were intimately blended with a fine compact earth, and when separated had a knotty appearance. No shells were found near the bones, but their impressions were observed to be in great abundance, few in the upper parts, but a great number lower down. About twenty-eight feet below the bones, a bed (one foot thick) of oyster shells, described as being remarkable for the thickness of their valves, was traversed; and a few feet below them, a number of shells, and some few sharks' teeth, all in a good state of preservation, were collected. These shells having been sent to Philadelphia, are said to have reached their destination in a very mutilated state; those that could be referred were 'the *Pecten Jeffersonius*, *Turritella pleceia* of Say, and *Venericardia Blandigii* of T. A. Conrad, together with other well known tertiary shells.' But on producing some of the indurated casts of the small spiral and bivalve shell previously mentioned, they were recognized by Dr. Owen, as the associates, in that part of the deposit in which the oysters were discovered.

The fossil deposits that may be explored for marl are found at a greater elevation than those just described; they are believed to correspond with the lowest and middle deposits, containing organic remains, of Calvert county, and will afford a shell-marl of very good quality. The uppermost fossiliferous stratum designated as occurring in Calvert, has also probably its analogy in the silico-calcareous masses, of various size, covered with impressions of shells that are found strewn over the surface of the country between the lands of Hall's and Lyon's creek. They appear to have belonged to a deposit of fossils, since broken up, the fragments of which are thus scattered over the surface of the country. In the neighbourhood of Friendship, Anne Arundel county, there are large masses of these silicified shells forming rocks that have actually been quarried for the underpinning of out-houses.

Marl of excellent quality abounds, however, in this vicinity. It had been discovered by Dr. B. C. Carr in the public road, whence a small quantity was hauled and applied to a very poor spot in a corn-field, and although used in the

manner least calculated to show its properties, has nevertheless been accompanied by marked good effects. Dr. Carr having since discovered it in greater abundance and of superior quality on his own plantation, it will no doubt be liberally employed.

At Herring-bay, on the plantation of Mr. John Scrivener, there are two fossiliferous deposits: one corresponding with the lower marl beds of Calvert, and occurring in the ravines of water courses; the other near the top of the hills. The fossils in this latter deposit are principally *Pecten* and some *Perna maxillata*. As the contents of this bed can be easily removed, it is to be hoped that they will be extensively used. The marl in this place, though not very rich in calcareous matter and somewhat sandy, may still be used with great advantage in the proportion of about three hundred bushels to the acre, applied to the stiffer, clayey soil that occurs on the plantation.

Other deposits of a similar character but of more limited extent were observed in several places, but so far only south of Weems' creek on the Bay side, and Lyon's on the Patuxent side. On the other hand, in all the branches emptying into these two creeks, as well as in Hall's creek, the richer and more clayey marls occur in the greatest abundance. Directions were left that this marl should be used in the same manner as previously recommended to the planters of Calvert.

At the steamboat landing at Herring bay, there is also an extensive Indian shell bank, on the plantation of Mr. Garner, which together with the preceding deposits, should be looked to as affording abundant means of improvement to the agriculturist of the lower parts of Anne Arundel county.

As yet no fossil deposits available as marl have been discovered in that part of the county, known as the West river district; but it has already been seen that a substratum of that nature probably exists here also. The character of the superincumbent soil is, on the other hand, very different. As in the neighbourhood of Friendship, it varies from a sandy loam to a clayey loam; but it is much more ferruginous, being in some places almost an ochre, and is frequently much mixed with green sand, the quantity of which increases on the approach of South river. All the soils of this district are more or less favourable to the growth of tobacco, and produce abundant crops of oats and corn. They have been greatly improved by the use of plaster and clover, and in their present condition already form some of the most valuable landed estates in Maryland. It is believed, however, that they might be still more improved, if they could be conveniently supplied with lime.

The existence of the green sand in these soils is an interesting circumstance, indicating as it does, the approach, if not the existence among them, to what has been heretofore considered to be another agricultural resource. Thus at Lyle's mill stream, which is near the dividing line between Calvert and Anne Arundel, a deposit of green sand occurs, accompanied by some remarkable appearances. It is covered by a horizontal stratum, possessing some of the characters of the hornstone of mineralogists. The upper portions of the rock, which are not so compact at the

mass, exhibit obscure impressions of shells. In some places, the green sand is very nearly pure, yielding to analysis as much as nine per cent. of potash; in others it is mixed with what in a former report has been termed a micaceous black sand, and finally is entirely replaced by the latter. This green sand was again observed in the branches north of Lyon's creek in Anne Arundel county, and on the plantation of Mr. P. Pindal, who has determined to give it a trial, the result of which cannot yet have been ascertained.

This material has been found identical in chemical composition, with the celebrated Jersey marl, and no reason can be imagined why it should not produce as good effects upon the soils of this state, as it is known to have done upon those of New Jersey; except that the specimens hitherto examined have not yielded so large a proportion of potash, to which it is supposed to owe its fertilizing properties, as is reported to be found in the marl of the latter state. But the samples of this sand that have been collected in Maryland, were taken from the superficial portions of the deposits, as no excavations into them have been so far made; they may hence have been deprived by exposure of a portion of this essential constituent. It is more than probable that the interior portions of the bed would be found to yield a large per centage of potash, which with us has only once exceeded five parts in the hundred; whereas in Jersey it has reached to twenty per cent. The importance of the subject merits that it should be fully investigated; whilst it is the interest of the farmer, at the same time, to test the value of the material by direct application.

The soil in the vicinity of Annapolis, which is highly ferruginous, contains also in many places a large proportion of green sand. Here, as well as on the main road between this city and Baltimore, large masses of a ferruginous sandstone are met with containing impressions of shells. Similar masses of an agglutinated sand rock abounding in green particles, and showing some obscure impressions and fragments of the testæ of marine animals are found. And again other masses of compact white sandstone occur, very similar in the mode of their aggregation to those that constitute the *white rocks* at the mouth of the Patapsco. These rocks are not boulders, as they bear no appearance of having suffered attrition of any kind; they seem to have become indurated in the situations where they are now discovered, under the influence of circumstances which it is now difficult to appreciate.

The banks of the Severn, on either side, are elevated, and consist of highly ferruginous sands, in some places indurated into a coarse ferruginous sandstone. This is also the character of a great portion of Broadneck, between the Severn and the head of Magothy river. It is in the midst of these ferruginous sands, that deposits of the material to which the name of micaceous black sand has been applied, are found. On Round Bay, what are called the *blue banks*, are composed of this sand, containing particles of green sand, and enclosing fossils, or rather casts of fossils, but so obscure and so friable, that they can scarcely be referred to these prototypes. Among them, however, casts of the *cuculea vulgaris*

and *turitella Mortonii*, are distinctly recognized. The mineral characters of the deposit are very similar to those of an analogous one described in the report of the last year, as occurring in Kent county, and which is there in an indubitably green sand formation.

But the reason for directing the attention to this deposit at present, is because, as was mentioned in a preceding report, it has actually appeared to afford an agricultural resource of some value. An analysis of it shows that though principally composed of silex, or sand, and alumine, it contains likewise small portions of lime, potash, oxide of iron, sulphuric acid, volatile and resinous matter, with besides some vegetable extractive matter; and it has already been suggested, that a view of its chemical composition leads to the belief, when applied to the soil, such an arrangement of its constituents might be produced, as, by the decomposition of the sulphates of iron and alumine that are spontaneously formed within it, would give rise to the formation of a sufficient quantity of sulphate of lime, or gypsum, to account for the good effects that have resulted in several instances already from its application as a top-dressing to grass crops. It is necessary, however, to add a caution against its indiscriminate use, as the free acid which it sometimes contains, might prove injurious; though nothing is apprehended in using it at the rate of from twenty to thirty bushels to the acre.

Another material which is extensively used on the continent of Europe, as a *stimulating manure*—for so it is called, and is to be considered as one of the mineral products of Anne Arundel county, are the *ashes* that are derived from the spontaneous combustion of the *Lignites*, or fossil mineralized wood, and *pyrites* that occur in such abundance at Cape Sable, on the Magothy river. These ashes form the principal material employed in the manufacture of alum and coperas at the Baltimore works; they are used for the purpose in many similar establishments in France; but are also sometimes obtained solely for the purpose of offording a supply of this sort of manure. The French writers on chemistry applied to agriculture, who give them the name of *RED ASHES* (*Cendres rouges*), ascribe to them the greatest virtues. They are said to be used even before they have been lixiviated, or washed; that is before the salts which they contain have been extracted from them; but in this state it is also said of them, that they are apt to affect unpleasantly the eyes of both men and horses in spreading them: hence a preference is given to such as have been lixiviated. The best are described as being very red, light, fine, and possessed of a styptic taste, due to a small quantity of coperas, which they retain. The demand for these ashes is represented to be very great, the sale of them in the sole province of Picardy amounting to upwards of three millions of bushels annually. Unfortunately no directions are given about the method of using them, or as to the quantity to be employed. It is probable that they are used as a top-dressing in the same way as plaster of Paris; and it is evident from their nature that they must be employed with some precaution. The great consumption that is made of these ashes in France, where more attention

is paid to mineral manures than in any other country, suggests the propriety of testing their efficacy upon the soils of Maryland. They can be obtained in any quantity at the 'Baltimore Alum and Coperas Works,' on Locust point, at which place they are at present an incumbrance. It is proposed with the assistance of the intelligent proprietors of these works, to institute with the ashes a series of experimental trials in the course of the ensuing year.

Finally, and to conclude what remains to be said of the economical geology of Anne Arundel county so far as it has been determined to this period, it may be well to indicate the occurrence of beds of plastic clay, of considerable purity, on the banks of the Severn, at Round Bay. There are also in adjoining localities deposits of a very fine white sand, free from any admixture of mica, that would, it is believed, be found well fitted to the manufacture of glass. And at the head of Severn, beds of ochre, of a deep red colour will be found. Should these materials prove desirable to the various arts which they commonly subserve, every further information to facilitate their acquisition will be given by Capt. Wales, of Annapolis, whose barque under his own command was chartered for the purpose of exploring the river, and who is therefore well acquainted with the best location of these several substances.

MASSACHUSETTS LEGISLATURE.

House of Representatives, Feb. 20, 1837.

REPORT AND BILL TO ENCOURAGE THE MANUFACTURE OF INDIGENOUS SUGAR.

The committee on Agriculture, to whom was referred the Order of the House of January 21st, "to inquire what measures, if any, are necessary to introduce and encourage in this commonwealth the culture of the sugar beet," have taken that subject into consideration, and unanimously ask leave to submit the following

REPORT:

If we may credit statements that appear to be well substantiated, the culture of the sugar beet may contribute as largely to the improvement of our agriculture, as the turnip culture has to that of Great Britain; and if encouraged, will not only give our farmers a most valuable addition to their field products, but save to the State large sums of money annually paid out for foreign sugar.

On several accounts this culture merits particular consideration. As a cleaning crop, for the destruction of weeds and for pulverizing the soil, it is as effectual as a naked summer fallow, without its attendant exhausting and pernicious consequences. As an ameliorating or enriching crop, it will take the precedence of our most enriching grasses, in the amount of vegetable matter returned to the soil, or product of nutritious food for any description of farm stock, and at the same time afford, in sugar, a larger marketable value than the same land will produce of the exhausting crops of wheat or corn.

These facts will account for the enthusiasm with which this culture is regarded in France; and if true, fully sustain the opinion of your Committee that encouragement, for the growth of

the sugar beet in Massachusetts, is dictated by sound wisdom, and eminently calculated to promote her agricultural interest.

It is believed that it will in some degree break the charm that rests upon old usages and customs, which are followed for the very substantial reason that they have been followed by generations past, and introduce a better and more enlightened system of rotation or alternation of crops; that it will dispel somewhat the prejudice existing against new plants or implements, or new modes of culture, by contrasting among our farmers, stronger than has yet been done, the superiority of improvement over antiquated notions; and by fertilizing his lands, increasing his various agricultural products, and his ready capital, furnish both the farmer and his sons profitable employment at home, and stay the tide of emigration to the south and west,—our climate securing to us, in the beet, an article of produce with which those regions probably cannot successfully compete.

The fact that our soil will readily produce beets, is within the experience of almost every farmer in the State, and there is no reason to doubt that, both in quantity and quality, it will give crops equal to the soil of France.

In 1830, the Massachusetts Agricultural Society awarded Mr. Gideon Foster, of Charlestown, a premium for one acre, yielding forty-three tons, nine hundred and sixty-one pounds of scarcity beet,—a variety which, though not considered the best beet for sugar, is said to be extensively cultivated in Europe for that purpose. This crop, estimated by Mr. F. to cost \$35 for cultivation, was very large, perhaps more than double the weight of those considered good crops in France, or that may be expected from ordinary good land and cultivation here, but still it shows what can be done. And as this is the only well authenticated account of the product of an acre exclusively of beets, cultivated in Massachusetts and known to the Committee, (although there may be many others,) they will make it the basis of some calculations to show the value of the beet culture; bearing in mind that this quantity of beets was given only by land in the highest state of cultivation, such as would probably give one hundred bushels of corn, or fifty bushels of wheat, in a favorable season.

Beets of good quality are said to contain ten per cent. of saccharine matter, capable of chrysalization. But in the present state of improvement in the manufacture, six pounds of sugar from 100 pounds of beets seem to be thought a fair estimate. From the same quantity of beets, after being submitted to the rasp and press, there remains also thirty pounds of pomace, and 60 pounds of pomace is considered a fair daily allowance of feed for a fattening ox. These estimates are of French authority, and however well or ill they may bear the test of experience in Massachusetts, we have at present no others from which to make our calculations.

Apply these estimates to Mr. Foster's crop of 43 tons and 961 pounds, and they will give 5217 pounds of sugar, and 434 days' or more than fourteen months' feed for a fattening ox. The value of this feed, and the means it will furnish for enriching the soil, will be seen at once by the

farmer. Estimating a day's feed equal to one peck of corn (the usual quantity given a fattening ox per day, in addition to hay,) and its value would equal 108 1-2 bushels of corn. Add to this the 95⁸/₁₀₀ dollars balance received of the manufacturer for the juice extracted,—which it will amount to, estimating at the proportional difference at which they have been sold in France, the beets at \$4 per ton and the pomace returned at \$6 per ton—and also the great quantity of leaves and tops left on the ground cultivated, at least half equal to a dressing of manure, and it will be very difficult for any one to see that the beet culture, if successfully introduced, will give thrift to the cultivator and energy to the soil. If there is any crop cultivated by our farmers, which gives a return half equal to this, without exhausting the soil, it is not known by your committee. It may be recollected also, that less than two thirds of the sugar is obtained by the present process, and improvements in the manufacture are constantly progressing.

The expense of manufacturing the sugar here, cannot be known until tested by the experiment; but we see no reason why it may not be manufactured here, after having been fairly brought within the scope of yankee ingenuity and enterprise, as cheap as in France. Such is found to be the case with heavy cottons, or substantial goods or wares of many kinds, not requiring a great degree of extreme nicety and fancy, or of chemical knowledge in their manufacture.

The price of a day's labor is much less in France than here, but the difference in the price is probably not much greater than the difference in the effect of the labor; and if it were, the objection does no more forbid our raising beets than it does our raising other agricultural products, that are common to both countries.

By reference to the books of the customhouse, in Boston, it will be seen that, exclusive of what was reshipped, over twenty-six millions pounds of foreign sugar was imported into this city in one year ending Sep. 30th, 1836, at an expense to the importing merchant, exclusive of freight, of nearly \$200,000. From the foregoing estimate, it will be seen that it is possible to produce this amount of sugar from a tract of land less than three miles square. This is shown to be possible, but not probable, at least until great improvements, such as we may hope this culture will introduce, are made.

The possibility however of doing this, or any thing like it, or even half of it, may justly claim our most candid attention.

Two millions of dollars annually paid out of the State for a foreign product, which for aught we know, can, and eventually will, be raised cheaper with us than with them, is certainly matter for the grave consideration of legislators.

It is a subject permanent in its bearing, and assumes an importance, compared with which, many others that engage our liveliest attention, dwindle almost to insignificance.

Even the portion of the surplus revenue coming to Massachusetts, which has excited so much interest over the Commonwealth, amounts only to three fourths the sum annually paid out by her

citizens, for an article which her own soil might produce, without a whit's diminution of her present products. That this assertion is even less than the truth, will eventually be demonstrated; if the facts stated in regard to the sugar beet culture are correct.

For years no subject of equal importance to our agriculture has presented itself; and well may it be said that the vital interests of the Commonwealth are neglected, if this culture is not encouraged.

Let those facts, so well established in France—that this culture returns to the soil, in enriching matter, more than an equivalent for its heavy exactions, and at the same time affords ample returns for the labors of the cultivator and manufacturer, in a value that is not confined to the civilized world for a market; become established here, and it is not easy to estimate all its advantages. Its enlivening influence will be felt in every department of domestic industry and trade; and it hardly requires the gift of prophecy to say the time will not be far distant when we can add a third staple to our exports of "rock and ice."

Sugar, from having been considered a luxury, is now an indispensable article of subsistence for the poor and for the rich. Its production, cheap, and in abundance, from having been confined to the south, is now held out to the north; and shall we not with gratitude, accept the boon so unexpectedly offered us by a kind Providence, and aid its immediate culture, and secure its immediate benefits? or shall we leave it to the care of individual effort, and its benefits to those who succeed us in the active duties of life, if they shall be so fortunate as to possess the energy necessary to achieve its successful introduction?

The policy of giving encouragement for the introduction of a new staple, promising so much to enlarge the resources of our agriculture, can hardly be questioned, or its necessity doubted.—The farmer must depend upon the manufacturer for the sale of his beets, and the establishment, of manufactories is a work of time. Experience, skill and implements, in the first place must come from abroad, and be imported at considerable expense, or a course of experimenting adopted, likely to be still more expensive, if not ruinous. The various obstacles incident to, and almost inseparably connected with every new enterprise, and which in this case may be neither few nor small, must be overcome by the pioneers. This is well known at the outset; and under these circumstances, multitudes might believe, that eventually, this would be a great and profitable business, and not an individual be found ready to break the ice and commence the manufacture; so likely is it to be prosecuted more successfully by those who stand by and take first lessons from the experience of others, who run the risk and lead the way.

On the other hand, however much this culture may promise of success and profit, and however well those premises may be fulfilled; is it on that account less worthy the patronage of the government? Surely not. It cannot be the policy of an enlightened government to extend liberal patronage only to those objects which

promise a doubtful issue, but rather, if any are encouraged liberally, it will be those which promise to *repay* liberally.

In accordance with these views, the following Bill is submitted by order of the Committee.

WM. CLARK, JR. *Chairman.*

ROTATION OF CROPS, POTATOES AND CORN.

Rotation of crops, is certainly among the most valuable of the modern improvements in agriculture. The scientific researches of many farmers have enabled them to discover some of the principles of vegetation, formerly but little understood. And it is believed that they will generally soon be fully convinced by experiment of the great benefits to be derived from rotation of crops. The different kinds of vegetables require nutriment peculiar to each class, and by planting the same kind on the same soil for a number of years in succession, the vegetables or plants degenerate for the want of their peculiar aliment; or as the common expression is, the soil becomes exhausted. It is therefore conceded to be an injudicious practice to cultivate the same crop, upon the same soil, for even two years in succession.

The same remark is applicable in horticulture; although a plentiful supply of manure annually, may afford some remedy for a previously exhausted soil.

By a judicious succession of crops, and the frequent use of that most important instrument to farmers, the plough, the fertility of the soil may be maintained. So many valuable essays have of late been published upon this subject, that we will not extend our remarks; but beg leave to refer to that of J. Hamilton Couper, republished in the *Northern Farmer* of 9th March 1833, as containing much valuable information, and as being worthy of an attentive perusal. Connected with this subject is the adaptation of the different soils to the various kinds of plants. Many skillful farmers acquire some practical knowledge of this subject, without understanding its true principles. Indeed, these principles cannot be well understood without the aid of the science of Chemistry. Chemical Science is indispensable to the Physician; but it falls not exclusively within his province. The practical farmer will find it of vast service in his pursuit. Its study ought therefore to be encouraged.

By ascertaining the food which different kinds of vegetables require, and the nutritious qualities of the various soils, the agriculturist is enabled to decide how he can, generally, produce the largest crops, with the least labor and expense.

He cannot have sufficient foresight to guard against unpropitious seasons; but acting upon enlightened principles and correct theories, his prospects of a good harvest will seldom be cut off. Our present object is to submit a few remarks upon two of our most essential agricultural products, potatoes and corn.

In this section, we raise no vegetable of greater profit or more general use than the potato. And its annual consumption seems to be yet on the increase. We learn from aged persons, that some fifty or sixty years ago ten or fifteen bushels of potatoes were considered as a large crop for each farmer; and at that period, it was as un-

common for a slaughtered swine to weigh 250 lbs. as it now is, to weigh seven or eight hundred—Now, a thousand bushels or even fifteen hundred, is not an uncommon crop, upon a farm of one hundred and fifty or two hundred acres.

It has been believed by many, that high, sandy, or gravelly soils are best adapted to the growth of potatoes. But the modern theory, proved by experiment, is, that a low cold bottom, or clay-pan is preferable. I have for several years cultivated this vegetable upon a low, level, clay-pan, taking care to have proper drains in case of heavy rains; and find that it not only yields largely, but that the quality or flavor of the potato is superior to that of those produced on high, sandy soils. A cold bottom is more congenial to them. And it is generally known, that in a cold, wet season, they flourish better, than in a very warm and dry one. But when planted in low lands, the drains should always be kept open, to prevent overflowing.

It is said that in some parts of Ireland, famous for excellent potatoes, the potatoes are planted in low, and boggy lands, in beds, between which a ditch or drain is cut; and that the mud or most nutritious portion of the soil which gradually collects in these ditches, is taken up to cover the potatoes. The practice, which many farmers are adopting, of laying out their low and marshy lands into beds rising in the centre, of four four or five rods in width, with intervening drains, running towards a common outlet, will prove highly beneficial; and when there shall be a great increase of population, and the value of our lands shall be greatly enhanced, this practice will be adopted by all good farmers. It will then be admitted by all, that our valleys, and swamps contain the most fertile soil. In these, have been collecting for ages, decomposed vegetable matter, which constitutes the deep black soil. This kind of soil conveyed on to high sandy barren land, with a mixture of animal manure, will convert the latter into fruitful fields. And the fertility of the low land is increased by spreading upon its surface, loose sand or gravel from the hills.

The old practice of making the potato hill in an oval form or the shape of a sugar loaf, is very censurable. The same remark is applicable to the corn hill. Because, hills so formed, do not absorb so much moisture, when the rains descend, as hills flat at the top.

It is believed that a former practice of planting small potatoes, is now universally condemned. But many are yet of opinion, that it is as judicious to plant cut potatoes, or slips, or the eyes, as whole potatoes. This practice is contrary to the course of nature. Nature is always right, in all her operations. The Farmer should take nature for his great and unerring guide.—Hundreds of various theories have been published upon this important point. The result of our observations and reflections, respecting it, is, that it is always best to plant the best potatoes whole, except those containing too many eyes, of unusually large size. The latter may be divided. I raised a potato, perfectly sound, of an oval form, weighing two and one half pounds. This I cut into twelve pieces, which from twelve hills, yielded two bushels. If slips are planted, the plants or sprouts come up more slender and feeble. In favorable seasons, they may often look very well,

but not so well as those from the whole potato. Care should be taken to prevent the growth of too many sprouts or stalks. Four or five in a common hill are sufficient. The size of the potato depends very much upon the number of stalks, and the size as well as richness of the hill. Potatoes degenerate by means of an improper mode of cultivation, and not from the climate. This vegetable of inestimable value contributes most to the health, growth and fatness of cattle, after being boiled, or steamed. It ought never to be given to swine in a raw state, unless, possibly, in the warmest season of the year, after being partially dried.

The common practice of mutilating corn stalks, or "topping corn," before the ear has come to maturity, ought to be condemned. It may be difficult to account for the origin of so singular a practice. But we trust that its termination will not be at a day far distant. It stands opposed to reason and philosophy. But our suggestions upon this important subject must be deferred until a more convenient time.

W. CLAGGETT.

Portsmouth, February 19.

CLAIRMONT NURSERY,

3 Miles East of Baltimore.

ROBERT SINCLAIR, Senr.



Proprietor, hereby informs his friends and the public that he expects the weather will be suitable to commence filling orders about the middle of the present month.

And owing to the winter setting in so unusually early, it is believed prevented many persons from ordering who intended to have done so, and even many orders that did come, had to remain unfilled until the spring, consequently his stock remains good for most articles as advertised last fall—particularly Apple, Peach, Plum, Quince, English Raspberry, Strawberry, Gooseberry, Currant, Grape Vines, three years old, and Cuttings of the same, a few hundred *Morus Multicaulis*, and other Mulberry Trees, Ornamental shade Trees, many kinds, and several of them of large size, Balsam Fir, or Balm of Gilead, and other evergreens, and a superb collection of Garden and China Roses, and other beautiful Flowering Shrubs, Honey Suckles, Vines and Creepers, Rhubarb for tarts, &c. See printed and priced catalogues, to be had of the proprietor, gratis, or of R. S. jr. in Light street.

Also will be delivered to customers, strong thrifty potted Plants; about the middle of May, a splendid assortment of double Dahlias, consisting of about one hundred varieties, carefully selected from among the best and latest importations. Printed catalogues will be furnished as above.

A few more pair white Turkeys, and 2 male Peacocks
Feb 14

GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

JONATHAN S. EASTMAN.

Feb. 14

CONTENTS OF THIS NUMBER.

Value of corn stalks as provender—A corn meal Rusk—Notice of a Threshing Machine—Carrot field culture—Culture of Oats—Mode of sowing Clover Seed—Rise and progress of agriculture—Domestic Silk—Geological Survey of Maryland—Report of Massachusetts legislature on the Sugar Beet—Rotation of crops, and the culture of corn and potatoes—advertisements—Prices current,

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel.	90	91
White,.....	"	85	86
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR&MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's,.....	"	—	—
Do. do. Superfine, ex.	"	10 00	10 25
SuperHow. st. in good de'd	"	9 75	10 73 1/2
" " wagon price,.....	"	10	9 50
City Mills, super,.....	"	9 50	dull
Do extra,.....	"	9 50	—
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. in bbls.	bbl.	4 87	5 00
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	62	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 12	1 25
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	5 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,...	"	6 00	8 00
" good yellow,.....	"	8 00	12 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf,...	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 15
Red, best,.....	"	1 75	2 05
fair to good 180a200 inferior,	"	1 20	1 60
WHISKEY, 1st pf. in bbls.....	gallon.	42	42 1/2
" in hhds.....	"	39 1/2	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45	50 28 30
Three fourths Merino,.....	"	42	45 26 28
One half do,.....	"	38	42 26 28
Common & one fourth Meri.	"	35	38 26 28
Pulled,.....	"	38	40 26 28
Howard st. Flour, sales limited, receipts very light.			

A BARGAIN.

For sale a Devon cow with her third calf. The calf is a male, a few weeks old. The cow is a perfect model of her beautiful breed, and both warranted pure. Any gentleman wishing to obtain this excellent strain of English cattle cheaply, will do well to make early application to the subscriber. Price of cow and calf, \$95.

Apply to

EWD. P. ROBERTS,
Baltimore, Md.

March 7.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	—	15
Middlings,.... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	1 93
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, barrel.		—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

U. S. Bank,.....	par	VIRGINIA.
Branch at Baltimore,....do	do	Farmers Bank of Virginia 1 1/2
Other Branches,.....do	do	Bank of Virginia,..... 1
MARYLAND.		Branch at Fredericksburg, do
Banks in Baltimore,....par	par	Petersburg,..... do
Hagerstown,....do	do	Norfolk,..... do
Frederick,.....do	do	Winchester,..... do
Westminster,.....do	do	Lynchburg,..... 1
Farmers' Bank of Mary'd, do	do	Danville,..... 1
Do. payable at Easton,.... 1/2	1/2	Bank of the Valley,.... 1a2
Salisbury,.... 1 per ct. dis.	dis.	Branch at Romney,.... 1
Cumberland,..... 2	2	Do. Charlestown,.... do
Millington,.....do	do	Do. Leesburg,..... 1
DISTRICT.		Wheeling Banks,.... 2 1/2a3
Washington,....do	do	Ohio Banks, generally 4a5
Georgetown, } Banks, 1/2	1/2	New Jersey Banks gen. 2a2 1/2
Alexandria, } do	do	New York City,..... 1/2a
PENNSYLVANIA.		New York State,.... 3a3 1/2
Philadelphia,..... 1/2a	1/2a	Massachusetts,.... 2 1/2a3
Chambersburg,..... 1	1	Connecticut,.... 2 1/2a3
Gettysburg,..... do	do	New Hampshire,.... 2 1/2a3
Pittsburg,..... 2a2 1/2	2 1/2	Maine,..... 2 1/2a3
York,..... 1/2a	1/2a	Rhode Island,.... 2 1/2
Other Pennsylvania Bks. 1 1/2a2	1 1/2	North Carolina,.... 3 1/2a4
Delaware [under \$5].... 3a4	3a4	South Carolina,.... 3 1/2a4
Do. [over 5]..... 2a3	2a3	Georgia,..... 4a5
Michigan Banks,..... 6a	6a	New Orleans,..... 6a7
Canadian do..... 6a	6a	

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth street,
Feb 28—4t Philadelphia.

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 13. Editor Farmer & Gardener.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers or sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t. Baltimore, Md.

GARDEN SEEDS.



The subscribers are now opening a superior lot of GARDEN SEEDS, growth of 1836. The most prominent seeds received and for sale are—

250 bushels Garden PEAS, of various sorts.

150 do Dwarf and Pole BEANS.

2000 lbs. CABBAGE SEEDS,

among which are Scotch Early York, a superior cabbage; Flat Dutch, Drumhead, Savoy, Early Bullocksheart, Early French, &c.

250 lbs. CUCUMBER SEED, of various sorts, including Keene's fine long green, white spined, &c.

1500 lbs. Mason's scarlet short top RADISH SEED; yellow turnip, long white, and every other variety of Radish.

1000 lbs. Mangel wurtzel, French Sugar and Table BEET SEED.

50 lbs. Kale Seed of various sorts

200 " Carrot Seed for table and field

30 " Lettuce Seed, several finest kind

250 " Onion Seed

300 " Ruta Baga Seed

Also, Tart Rhubarb Seed, Tomato, Egg Plant, Squash, Salsafy, Spinach, Okra, Leek, Celery, Endive, &c. &c.

FIELD SEEDS—English Perennial Rye Grass Seed; Lawn Grass; yellow and scarlet Trefoil; Lucerne; English and American Oats; Huskless Oats; Gama Grass Roots and Seed, early and late Potatoes; 10 kinds Corn, best early and late sorts; Albany field and Cow Peas; Clover Seed; Timothy; Herd Grass; Millet; Orchard Grass; Buckwheat; and in short every other Seed, Tool or Implement appertaining to the want of the farmer and gardener.

ROBT. SINCLAIR, Jr. & Co.

March 7. Light, near Pratt street wharf.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100

Do. exclusive of the wheels, shafts and axle, 60

For applying the machinery to a common cart 45

For the machinery alone 40

Including the patent fee in each case. fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz. papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

SETH WHALEN, P. M.

Feb. 1837—28 Whalen's store, New York.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & Co.

mh 7 Light, near Pratt street wharf.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 49.

BALTIMORE, MD. APRIL 4, 1837.

Vol. III

THIS publication is the successor of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, APRIL 4, 1837.

LEGISLATIVE PROTECTION TO AGRICULTURE.

We insert in another column, the report of the committee on Agriculture, in the Maryland Legislature, and although there was no final action on the subject, we are gratified to find that the committee have taken a just view of the propriety of offering bounties to encourage two branches of husbandry of the very first importance, not only to the State but to the country at large, viz: the *Silk* and *Beet* culture. The Legislature had been memorialized from various parts of the State to foster these pursuits, as also to establish, or rather to lay the foundation for the establishment of, *pattern farms*, *agricultural schools*, and *agricultural societies*; the latter branches of encouragement, though they do not appear to have found the same favor as the former, with the committee, are entitled to equal consideration, and we trust a year's reflection, and a more mature investigation of the beneficial effects to flow from them, will render the necessity of such institutions so obvious as to secure the adoption of measures to carry them into full and perfect operation. In the mean time, we sincerely trust that the agriculturists of the State will take the proper steps to form, in the several counties, agricultural associations. These once formed, cannot fail to bring together an influence which must ultimately prevail in furthering every object in which the interests of farmers and planters are concerned. Such societies would be able to collect the views and feelings of the people of the State, and by a judicious and decided concentration of their strength and energies—by a clear and respectful representation of their wants—by a bold and manly appeal to the justice, magnanimity and pride of the next General Assembly—would assuredly secure

all that they could rightfully ask of the paternal care of the state government.

While we recommend this action to the husbandmen of Maryland, we would wish to include the force of our remarks to every other state in the Union where similar legislation is required, to advance the prosperity and welfare of agriculturists, who form the great and paramount interest of all communities, as they, by their toils and enterprise, lay the foundation and superstructure alike of individual and national wealth.

For want of time, the recommendations of the report were not acted upon by the legislature; but the intelligent chairman of the committee, and his associates, deserve not the less credit for the spirited and patriotic manner in which they speak of the views of the memorialists, and we trust that they will receive their reward in the fullest measure of gratitude which their constituents can award them; for those who manifest their friendship in this hour of agricultural trial and embarrassment, should be appreciated as true friends.

WORK FOR APRIL.

ON THE FARM.

Corn.—Wherever the corn ground has not been got ready, it should be prepared immediately, as every delay at this period of the year is dangerous. Let every one make his arrangements to throw a handful of spent ashes and plaster on each hill of corn as it comes up.

Wheat and Rye.—If the surface of your grain fields appear baked, do not hesitate to pass a light harrow over them, that to be succeeded by a roller; do not fear that you will injure the growing plants. If you draw one out and cause its destruction, you will do service to nine others, and will increase your chances for a good crop, 25 per cent.

If your Wheat or Rye have been partially winter killed, and you can obtain seed of the spring variety of either grain, harrow it in on the injured fields, and it will not only remedy the evil, but increase your product.

Whether your grain fields have been injured or not, if you can obtain seed of either the *Spring Wheat* or *Rye*, and have the ground to spare, you

should sow a few bushels to lay the foundation of a future supply of seed; for if the present year should be as disastrous to wheat crops as the three last, the wheat culture will either have to be abandoned, or the *fall* sowing substituted by that of spring.

Grass Seeds.—Such of you as have not got in your grass seeds, must do so without further delay. If you sow it on grain fields, or alone, do not omit to harrow it in; much grass, you may rest assured, owes its early destruction to a want of proper depth in the earth at the commencement of its career—nothing can live where its roots are exposed to alternations of heat and moisture without a covering of earth.

Barley, Hemp, and Field Peas, should all be sown as early as practicable.

Oats.—Get in your oats as soon as possible—pulverize the ground well, manure it if you can, and sow at least 2, 2½ or 3 bushels to the acre.

Potatoes.—Let your ground be thoroughly pulverized and well manured, and you may expect a good crop if planted at this season; but the earlier they are got in the better.

Carrots, Parsnips, Beets.—Let us conjure you not to fail to get in a few acres of these roots for your cattle. Those of you who love good milk and butter, will never omit planting them each revolving year, after having realized their benefits once.

Before we close this short notice of the work of this month, which we are compelled by indisposition to make *brief*, we would respectfully ask our agricultural friends, one and all, to devote a few acres of their grounds to experiments in corn growing. By proper manuring and culture, we are fully persuaded that this may be made a most profitable branch of husbandry—and from present prospects, we fear the day may come, when those who have formerly relied on their *wheat*, will have to turn their attention to *corn*.

ITALIAN WHEAT.—A Connecticut farmer introduced the last season the culture of the *Italian spring wheat*, and it proved very successful. He raised forty bushels to the acre. This grain is heavy, makes good flour, yields well, and the crop avoids all danger of winter freezing.—*Portland Courier*.

A VISIT TO MR. BELTZHOOVER'S FARM.

In noticing the stock of Durham and Ayrshire cattle, blooded horses, and Leicester sheep, imported from England by Mr. Rezin D. Shepherd, some weeks since, we promised to pay another visit to this establishment, with a view of speaking more particularly of its conveniences, and the economy with which the several departments are conducted. Hearing that the greater part of Mr. Shepherd's stock were to be sent to Virginia on Wednesday last, on the day previous, we availed ourselves of an invitation to that effect, and accordingly wended our way to Mr. Beltzhooover's farm, confident, from the high character of the proprietor as a *feeder*, whether the subject be an honored guest of Mine Host of the "Fountain Inn," or a domestic animal, that our eyes would be feasted with a sight with which they might be more than gratified; and we were not disappointed. In our former notice of Mr. Shepherd's stock, we spoke of their having suffered in flesh from the effects of a long and boisterous passage. They bear now, however, no trace of those effects; for in the short space that they have been at their present quarters, revelling, as they have, in beds of straw up to their fetlocks, and enjoying the best that a well filled barn could afford, together with the kind and judicious treatment of the excellent cow-herd who attends them, they have put their *points of frame* to the blush, and have assumed those which are the sure indices of skill and generosity, and which so commend their noble races to the favor of the *amateur*, and are at once the test and the delight of the more practiced *connoisseur*. With these brief remarks we will proceed to details.

We were first ushered into the apartment of the stable in which Mr. Shepherd's *Ayrshires* were stalled. On the north of the range, stood two 3-year olds, who had but a few days previously given birth to their first calves, and although from our acquaintance with the history of their breed—although we knew they were the pride and boast of the place of their nativity—candor obliges us to declare that they far more than realized our most sanguine expectations of their peculiar excellence. England is justly proud of her Durhams, Devons and Herefords, and Scotland, with an ambition equally well placed, reposes her claims to pre-eminence on her *Ayrshires*. Cows, it is known to every reader, do not attain the height of their capacity for secreting milk, until they have thrice borne the burthen of love, and thrice endured those pangs which, however exquisite in the infliction of agony, are replete with after joys

that more than compensate for pains endured; for though the brute mother cannot commune with her offspring—instinct, that more than half reasoning attribute, teaches her to nurse it with a kindness in its helplessness, which humanity might sometimes imitate with profit. Here were two 3-year olds, with their first calves, with udders possessing a volume so potent as to create a suspicion of their age, if the ring around the horns, and the certificate of pedigree, had not settled the point. That we were surprised is natural; for although we have in our day seen many, very many, fine young cows with their firstlings, we certainly never had seen any thing that could compare with *these*. In answer to an inquiry which we made of him, the cowherd assured us, that one of them gave 20 quarts a day, and the other 24. On their calving, their young ones were taken from them, and they were consigned to the pail, being milked four times a day. When we saw them, it was about 4 o'clock in the afternoon, and although they had been twice stripped, their udders were distended to such a degree of repletion, that it was painful to look upon them—so wonderful are their powers of secreting the generous fluid. The *Ayrshire* cow is not large, but beautiful in form and color, and makes ample amends for the absence of great size by her copious contributions to the pail.

For the satisfaction of the reader who may never have seen the *Ayrshire* cow, we will attempt a description. Her *head* is small, tolerably long, the muzzle narrow, the *eye* is animated and evincive of good temper and buoyant spirits, the *horns* are crooked, sometimes assuming what is termed crumpled; the neck is truly beautiful and fawn-like, being long, delicate, and tapering as it approaches its junction with the head, the *fore-quarters* as may be presumed from the structure of the neck, are comparatively light—but the *hind-quarters* are capacious, the *back* is almost mathematically straight, tending to great breadth in the hinder part, the joints disposed to looseness, the *carcass* may be called deep, while the *pelvis* is ample, with great width over the *hips*, and rotundity of *buttocks*, sufficiently fleshy to be in keeping with the general symmetry of the body. The *tail* is thin and long, and adds much to the appearance of the animal, the *legs* are rather short, though cleanly built, indicating much strength of joints and elasticity of muscle. The *udder* is of most ample volume, extending forward considerably, as if covetous to monopolise those localities where the secretory vessels do dwell; the *teats* are of medium size, and well made, the

milk veins are well defined, manifesting the most perfect competency to perform their office, the *skin* is thin and hangs loosely on the carcass, and is covered by *hair* of a satin-like appearance. On the whole, the *Ayrshire* is a beautiful compact animal, of proportions which peculiarly fit her for all the purposes of a good dairy cow, and though smaller than the *Durham*, and several other breeds, must, from her great aptitude to secrete milk, become a favorite in our country, as they are in Britain, when their excellent qualities shall have been better known. The color of the race is red and white, pied.

Three other *Ayrshire* heifers stood beside those young mothers, each in a condition soon to imitate their more forward neighbors, and become competitors for distinction in the honors of the dairy.

Mr. Shepherd's *Durham* heifers, 5 in number, three 2-year olds; one 3-year old, and one 1-year old, have greatly improved in appearance, and might vie with any similar number of animals in this country or England; they were purchased from herds of the best breeders in the latter country, by a skilful agent, unrestrained by limitation as to price.

Two of the *Ayrshires* and 1 of the *Durhams* will remain at Mr. Beltzhooover's; the *Durham* heifer which remains is a clear red and white, 2-year old, of immense size, shewing a fine form and numerous indications of being the making of a deep-milker.

The one-year old heifer, to which we have alluded, is of great size for her age, and will make, if her skin is kept stretched, as it doubtless will be, an extraordinary animal.

There is an anecdote connected with the *Durham* heifer that will remain at Mr. Beltzhooover's, which should be told. The sales of the stock of two such men as the Rev. Mr. Berry and Mr. Denton, had necessarily brought together a large concourse of persons from all parts of the kingdom. Among these was the steward of an Irish nobleman. At the sale he became a bidder for her, but Mr. Shepherd's agent was fortunate enough to be the successful one. On the return of the steward to Ireland, he sung the praises of this young animal so temptingly that the nobleman forthwith wrote to Mr. Shepherd's agent at Liverpool, to know whether he would sell her, that if he would, money would be no object.

Mr. Shepherd has four ewes at this establishment, being left there when the rest of the importation were sent to Virginia, being in a situation too delicate to be removed. All of these have

yeaned except one, two of them having had twins. The young lambs are all fine, but there is one among them of singular beauty.

The three English pigs, of which we spoke before, have improved much, and might challenge a comparison with any *three* that ever graced a sty. The white boar is beyond all comparison the finest animal of the hog kind I have ever seen—his hams, middlings, and shoulders, are every thing that an epicure could desire: but what shall we say of his body—it is so long, so round and barrel-like.

Of Mr. Beltzhoover's own stock, we purpose now to speak. He has just commenced his career as a breeder of blood, and will, we are confident, prove as successful in this line as he has in that of the master of a Hotel; to say aught of his reputation in that particular would be superfluous, as his fame belongs to his country, and is cherished as a household god by every respectable traveller.

He has two full bred Durham cows and a beautiful bull of the same breed. The bull and one of the cows were bought of Mr. Seaman, of Long Island, New York. The bull was, we learn, raised by the Hon. Charles Henry Hall, of New York, a gentleman whose public spirit, generous enthusiasm, and ample means, have all been liberally laid under contribution, in promoting the improvement of the stock of the country. The bull is a fine sized animal, 4 years old, clear red and white, with many good points, and is backed by a pedigree unexceptionable and full; but if he had not this, his having been reared by Mr. Hall, as a full bred, would of itself be a passport to public confidence as to the purity of his blood.

The two Durham cows are noble creatures, showing blood at every point.

Besides these, Mr. Beltzhoover has several grades, Durhams and Devons, Simms and Durhams, and the very best lot of native cows we have ever seen. Where all are so good, it would be invidious to particularize, but among them there is a red buffalo, which is truly as splendid a piece of cow-flesh as the eyes need desire to alight upon: she is a deep milker and a breeder of good ones. Mr. Beltzhoover sold a young cow out of her a few days since, to Mr. Floyd of Virginia, which weighed 1522 lbs. and her calf also, whose weight 4 months old, was 448 lbs.

To look at Mr. Beltzhoover's cows as they stand in their stalls, as clean as bridegrooms, with their satin hides dazzling the eye, one would think it would be difficult to improve upon such stock.

Hogs—There are several distinct breeds in Mr. Beltzhoover's pens, all of them superior kinds, some grades of the china; but the best pair of breeders that he has, in our estimation, is a white boar and sow from Pennsylvania.

Without any pretensions to ostentation, Mr. Beltzhoover's barns, stables and out-houses are truly convenient. Under the same roof he has a granary, feed-house, ice-house, hen-house, cart-house, and stables, the one for horses, the other for calves, each convenient in itself, and constructed with all due regard to the economy of time and labor. Across the lane from this building are the cow-stables, yard, and piggery. As we said before, we see nothing in the former to object to except the racks, and we hold it that all hay should be cut and fed out of mangers. To promote cleanliness and economise manure, behind each stall of cows, there is a drain which conducts the fluids to the dung-heap, thus adding to the quantity and quality of the manure.

Attached to the piggery, there is a reservoir into which all the offals from the tavern are thrown, and the hogs fed from it as occasion may require. The pens are comfortable, and we need not add, cleanly kept.

The farm consists of above 60 acres of well improved land. A part of it is appropriated to a vegetable garden for the supply of the Fountain Inn. We saw in this part of the establishment, cauliflowers a foot high, lettuce in head, and various other plants nearly fit to be transplanted.

To conclude, good management, industry, and economy, are visible in every thing you see at the establishment, and we think Mr. Beltzhoover deserves great credit for his enterprize. He has our best wishes for his triumphant success.

CULTURE OF RHUBARB, OR PIE PLANT.

As the season is now at hand for sowing and planting this most excellent vegetable, the annexed communication of Mr. Edward Sayers is very opportune. To those who have cultivated it, or partaken of tarts made from it, we need not dwell upon its excellence, but to such as are unacquainted with it, we will remark, that as a material for deserts it is unexcelled by any other plant or fruit that grows. For such purposes many prefer it to the gooseberry, and indeed, when its virtues in a medical point of view are taken into the account, we hold it as a duty for every parent to keep a few roots in his garden, as while it answers for the purpose of preparing one of the most excellent tarts that can be made, its curative powers in the summer complaint of children, and

indeed, in all affections of the bowels, either in the young or adult, should commend it to general culture. While tarts compounded from it, serve either to remove or prevent such diseases, those made from other materials exert an injurious influence.

[From the American Gardener's Magazine.]

CULTURE OF THE PIE PLANT, OR RHUBARB.

The pie Rhubarb is one of the best known substitutes for green gooseberry tarts, in the early part of the spring, and by many persons is greatly preferred in wholesomeness and flavor. This excellent vegetable has been cultivated in the vicinity of large cities, in most countries, where it has always found a steady demand, as a market vegetable, and in private gardens it is always the first consideration.

Culture and Management.—The rhubarb is of easy culture, and very hardy, which renders it peculiarly adapted to this climate. It may be propagated either by seed or cuttings. The seed may be sown early in the spring, on a west border in drills, eighteen inches apart, and managed in the usual way of culture: the plants will be of a sufficient size to remove into a stationary bed, in the month of October, which is the best time for planting rhubarb. The method I have generally followed, and found to answer best, in making new plantations, is, by dividing the old roots and crowns, in such a manner that each set has one or more eyes. These sets I plant in nursery rows, two feet apart, and one foot from each other in the rows, in the spring, and remove them into their stationary bed in the fall.

Preparing and Planting.—The ground intended should be well prepared by manuring and trenching, as the rhubarb requires deep rich soil; this done, the bed may be divided into rows four feet apart each way, and at the angles the soil may be taken out of the depth of eighteen inches, into which may be planted one large root entire, which is to be covered with at least half of a wheelbarrow of well rotted manure, when the surface may be levelled. The after management of rhubarb requires good culture, as manuring, keeping clean, &c. If the Plants are slightly protected, in the fall, with a quantity of manure, they will be benefitted, and will also strengthen their roots.

The routine of planting rhubarb should be every three years, as young plants always produce the most tender stalks or canes. The method I have adopted, is, to take up one-third of my bed every year, by which I always keep up a good succession of young plants.

Yours, EDWARD SAYERS.

Those who desire their meadows to push forth a luxuriant growth of wholesome grass, should pass a harrow through them. In stirring the earth around the roots of the plants, they will give an impetus to their vegetation of great value.

PLASTER PARIS.

The following notice of the discovery and uses of this most excellent stimulative manure, will be

found acceptable at this particular time, it being the period of the year when it should be applied.

"The first discovery of the utility of Gypsum or Plaster of Paris, for agricultural purposes, was made by a laborer, engaged in pounding plaster near Hilburn, in Germany. He noticed the extra growth of the grass along the rout which he at different times travelled across a meadow; supposing it to be occasioned by the fine plaster dropping from his clothes, he was induced to try an experiment, to determine the point; it succeeded beyond his expectation; and others tested its usefulness, until all became satisfied of its nutritious qualities, and thus the use of plaster in Germany became general, as a manure wherever it could be obtained.

"In the year 1768, Jacob Barge, of Philadelphia, having learned the use of plaster in Germany, obtained some from a manufacturer of Burr stones, and scattered it upon a field of clover, which proved perfectly satisfactory; in consequence of which, Messrs. Hocker, Lancaster, Clifford, and David Delsher, all respectable farmers near Philadelphia, used the plaster in various ways, and for different plants, and were all equally well satisfied of its utility. The call for, and application of the article increased; and hence the commencement of a regular trade, upon the sea-board, in Nova Scotia, to all the Southern ports; which has regularly increased, from that period to the present time, and which has become a business as regular and as permanent as any other in the United States.

"The directions for the application of plaster, are so various and multiplied, that it is believed no certain general rule can ever be adopted, for it has been found that on some grounds, one bushel to the acre, is better than six bushels; two bushels to the acre, however, appears to be the quantity required for the largest portion of lands in Pennsylvania. No one should be discouraged if no perceptible benefit should result from a trial the first year; for it has been found, that the more slow in its effects, the more certain it is to be advantageous in two, three, and even four years after its application. For clover, grass, &c., it should be sown over the field, just before or after the grass or clover begins to grow in the spring. It is used in the same manner, upon wheat, barley, oats, and buckwheat grounds.

We should be uncandid did we not acknowledge our thanks for the following compliment to our journal. To receive the approbation of those who are competent to judge, is, certainly, one of the most gratifying incidents in the editorial life, and serves to stimulate one onward to renewed exertions:

We would commend to the perusal of our agricultural readers the prospectus of the "*Farmer and Gardener*," published in Baltimore, which will be found in our advertising columns. That paper is acknowledged to be among the best exclusively agricultural journals in this country, and the reduction of 50 per cent. in its price, will put

it in the power of every farmer to become a subscriber. We hope that the opportunity will be improved.—*York Republican*.

The legislature of Massachusetts, have, with becoming liberality and foresight, passed a law granting a bounty of three cents per pound on Beet Sugar for five years. This, as it has been very appositely remarked, will give a generous impulse both to the culture of the beet and its manufacture into sugar.

WINTER-KILLED WHEAT.

Extract from a letter to the editor of the *Farmer and Gardener*, from a friend residing in the vicinity of Marietta, Pennsylvania.

"MARIETTA, March 25, 1837.

DEAR FRIEND—I have just returned from one of my wheat fields, and felt sadly disappointed in finding more than one-half of the wheat frozen out, and that which is remaining, appears very weakly, indeed, and as I cast my eye around me, from off my fields, I found my neighbors' fields of wheat in no better situation than my own; so that, from present appearance, I fear we shall have very short crops."

ENCOURAGEMENT TO AGRICULTURE.

MARYLAND LEGISLATURE,
Session 1836 & 1837.

REPORT

Of the Committee on Agriculture, respecting the growth of the Mulberry and Sugar Beet.

The Committee on Agriculture, to whom has been referred the petitions of the citizens of various parts of the state, praying legislative aid for agriculture in general, and particularly to encourage the growth of the mulberry and sugar beet, by offering a bounty for a limited number of years, beg leave respectfully to

REPORT:

That after attentively considering the statements made by the petitioners of the impoverished condition of the farming interest of the state, they are but too powerfully impressed with the truth of the picture drawn by them, and fear that a deeper investigation of the subject would but add darker shades to the picture. They fear also, that upon fair examination, the planters and tobacco growing interest would gain but little by a comparison. For a number of successive years, the almost certain failure of the wheat crop, the great staple of Maryland, has so crippled the farmers of the state, that they are left at this time not only without the means of improving their soil, but almost without the means of subsistence. Instead of the large supplies of small grain furnished for foreign markets by the farmers of the state, the last year presents the melancholy spectacle of a dependence on foreign supplies for domestic consumption. Nor do your committee see, in the prospect of the present year, any thing likely to improve their condition. It is even too probable that in addition to the supplies which will be required for the present subsistence of the people, they may be obliged to depend on foreign importation for their seed.

This state of things has not proceeded in the opinion of your committee from any sudden or

unexpected causes, it has been the result in part of injudicious cultivation of the soil, and of injudicious legislation, or rather from the want of judicious legislative encouragement to the farming interest. The lands of Maryland were naturally fertile—and her climate is particularly favourable to the growth of small grain; formerly her fields yielded rich returns for the labor of the farmer—and he unfortunately did not consider that his lands were liable to exhaustion—"and that evil days might come," a season particularly favourable, and perhaps in ten or fifteen years yielded him a full crop and lulled him with a futile hope, that they would often return.

But experience has sadly proven, that they were "angel visits, few and far between," and have brought him at last to the unwelcome conclusion that the staff on which he rested is broken, and that in prosecution of his present system even hope must abandon him. What then is the remedy. In the absence so far of legislative aid, the only remedy that has been tried has been to abandon the State—and emigrate to a country offering better hopes. Has any other remedy offered itself? Your committee can see none—our citizens who have left us, to enrich and adorn by their talents and enterprise, our more prosperous younger sisters in the confederacy clung as long as it was possible to their beloved state. And would have no doubt continued to cling to the homes and the graves of their ancestors—and to and the honored beloved, moral and civil institutions of their native Maryland. They have but yielded to the laws of an urgent necessity in tearing themselves from their kindred and their own loved land. Is there then no remedy for this great evil? Can no inducements be offered? No hope held out to keep at home the native population now draining from every quarter, to an extent that must soon depopulate us—that is sinking our State in the scale not only of agriculture and commerce, but of political importance. Are the means within our power? Is the soil of Maryland susceptible of improvement. Are the means of improvement within the reach of our people? Is the climate congenial to the growth of staples capable of affording fair return for labor? Can no new staples be introduced by legislative aid, promising richer harvests?

These are questions not difficult to be answered—What is wanting then to enable us to improve our natural advantages? Money which has been called emphatically the sinew of war, may be as emphatically called the sinew of agricultural improvement. Has the State the means to afford the necessary supply of the great want? Your committee emphatically reply yes. The state has the means, and should, they will not say, generously, but honestly appropriate these means to this great object.—How has the state been applying the means derived from its credit for the last few years. Immense sums have been borrowed, and are now under your laws about being distributed for the promotion of your improvements of Rail-roads and canals. How are there immense loans secured to the great capitalist. Who loans this money? By the faith of the state, upon the value of the real estate of her citizens principally—Who are these citizens? The im-

poverished farmers and planters: for aid to whom you have been now invoked. What will be the effect produced by a judicious application of those means—to the improvement of your land—to double aye treble the state's capital, the basis of her credit? Let then the means of the state be so applied, say your committee emphatically.

The only question then is—how are these means to be applied.

The petitioners themselves, have in the opinion of your committee, suggested the best course to be pursued by the legislature. Our great staple *wheat* has failed for a number of successive years, and will not in all probability for many years succeed again. Can a new one be introduced to supply its place. Your petitioners propose two—which your committee believe are likely not only to supply the loss of the wheat crops—but probably far to surpass it in value, even in its most auspicious times. The experiments that have been tried in this country for the last fifty years, prove incontestibly; that the climate and soil are adapted to the growth of the mulberry for the manufacture of silk—a crop which if any credit is to be given to the statements of men of high character in this country, as well as in Europe, is more profitable even than cotton. The Italian mulberry introduced into this state previous to the revolution, is now so thoroughly acclimated, that it is among the hardiest of our trees. There is probably, no member of the legislature, to whom this fact is not familiar; and if there should be one, he can satisfy himself by a short walk into almost any field in the environs of this city.

The sugar beet is only a variety of the common garden beet, and is said to be equally hardy. There is no one ignorant of the adaptation of our soil and climate to the growth of this vegetable. The cultivation of the sugar beet is about to be commenced in some of the northern and western states, on a large scale for the manufacture of sugar—and the experience of France is, that it may be made for about five cents per pound.

If sugar can be made in France, at five cents per pound—your committee ask why can it not be made here? If the growth of silk is profitable too in China and France, Italy and in Connecticut, and Massachusetts, why can it not be made profitable here? Your committee can see no good reason why it would not then be a wise policy in the state, to encourage the introduction of both. Can any man say nay, provided it can be done with probability of success, and does not cost too much? What then will be the cost?

And how is the cost to be obtained, and applied, are the next subjects for consideration.—Your committee are again furnished with important information on the last of those inquiries by the petitioners. They are informed, and correctly too, that many of the states of the Union have passed laws giving bounties upon the growth of mulberry trees, and the growth of cocoons, and the various stages of the manufacture of silk.—The states of Connecticut, Massachusetts, Vermont, and New-York, have all passed laws for the encouragement of the silk-grower—and some of the Western states are now moving in the same track. Has their policy been wise? It is evi-

dent they find it to be so, because instead of retracing their steps, they are going onward increasing the bounty, as experience has given them a better knowledge of the value of the crop—and its tendency to attract to their bosoms the best population of other states. Even now the state of Connecticut is called on to increase her bounty upon the growth of this article—which it is admitted has been profitable for fifty years, to keep her population. Let Maryland then follow her example—and with her soil and climate better adapted to the growth of silk and sugar than any of her northern sisters, offer a bounty upon the growth of these articles, which will not only retain her own enterprising sons at home, but if large enough attract the best population of other states to her. If Massachusetts has found it to be her interest to give two dollars a pound for silk grown in her state, let Maryland, by the offer of a little higher bounty for a limited time, say seven years, avail herself of her natural advantage. If Vermont gives ten cents for every pound of cocoons raised in her state, let Maryland offer the same inducement, and there is little doubt that we shall see these staples flourishing in our state, and attracting our people: it will attract too a hardy and industrious population from these states acquainted with the management of this business, who will pioneer the way for our native citizens. Let a bounty be also offered for the cultivation of sugar, for two or three years, of two or three cents per pound, and the same results will follow the introduction of that staple. In the opinion of your committee, the greatest good will result from such legislation as is recommended. If those crops should succeed here as well as they have elsewhere—the sugar lands of Louisiana, and the cotton lands of Mississippi, will in effect be transported to atlantic Maryland, and the evil, then, it is believed, exchange the repulsive for the attractive form—and by a union of her agricultural means—stand with an overflowing population as her geographical position places her the most important state in the union.

The means of supplying the bounties recommended will without difficulty be found in the surplus revenue of the general government, deposited in the course of this year with the state, and may be beneficially used in the opinion of your committee, by establishing either a bank with the capital derived from this source at the seat of government, or by a division of the sum to establish banks in each of the counties of the state—the interest gained, to be applied to the payment of bounties, and the loans to be made, (giving always a preference to those who borrowed for the purpose of growing silk or sugar,) on the credit of real estate, to the extent of one half its appraised value, upon a credit of ten years, payable in instalments. If the interest should be more than sufficient to pay the bounties, the surplus to be added to the capital. This will insure the ability of the State to repay the deposit when called for by the government, and the state will be largely, richly benefitted.

BENJ. HOOD, Chairman.

Every farmer and planter, should be careful in selecting such breeds of hogs as are thrifty, hardy of constitution, come early to maturity and give the most meat at the least cost.

GEOLOGICAL SURVEY OF MARYLAND.

[Continued.]

SEC. 4.—Geological examinations made in St. Mary's, Charles and Prince George's counties.

In the progress of collecting the elementary facts that are intended to aid in constructing the proposed section of the valley of the Patuxent, two additional localities of fossils, were discovered in St. Mary's county of sufficient practical interest to be made known at present.

At Sotterly point, and extending to Major Scott's landing at Half-pone, the fossiliferous deposit makes its appearance a little above the water-edge. The shells, which appear to have been originally imbedded in a greenish sandy clay, are now firmly bound together, sometimes by a cement almost altogether calcareous, but often of a silico-calcareous nature. The rocky masses thus found are composed principally of *Pecten*, that have preserved their calcareous nature; and this is the case likewise with the large and thick valves of the *Panopea reflexa*; but the *Perna* and other more fragile shells are mostly washed away, leaving only their impressions, or casts. At Major Scott's landing, the rocks are almost exclusively composed of a species of zoophyte. It is probable that some of these rocks might be converted into lime for agricultural purposes.

The banks of Cuckold creek, a little lower down, exhibit an almost uninterrupted deposit of fossils of the same character as those described in the Report of last year, that were said to occur between Cole and Thomas' creeks. The shells, here, are mostly *Pecten*, *Panopea*, *Perna*, *Bucardia*, *Venus*, *Crassatella*, *Cyprea*, and *Isocardia* among the bivalves, and *Turritella*, *Fusus*, *Natica*, &c. among the univalves, loosely imbedded in sand; and, as the shells are very numerous, the material of the banks may be looked upon as an excellent marl. It would prove eminently serviceable on the level stiff soils that occur in its immediate vicinity.

The examinations made in Charles county, on its Patuxent side, have resulted in the discovery also of numerous fossiliferous deposits from which an abundance of shell-marl may be obtained. Directly back of Benedict in all the heads of branches emptying into the Patuxent, in those running into Indian creek, as well as those that flow into Swanson's creek, it abounds. As it presents in these localities precisely the same characters that were found to belong to similar deposits in Calvert, that the soil of the surrounding country is very much the same, and its condition of improvement also alike, the same directions for its use will apply to this portion of Charles county, and need not be repeated.

The geology of the Patuxent side of Prince George's county, affords a more interesting field of observation. It is intended, however, to direct the attention, at present, only to the most prominent features of interest connected with the occurrence of deposits containing marine remains, and other constituents that have seemed to give the promise of possessing some value.

In the neighborhood of Woodville, shell-marl of the same characters as those hitherto described, have been found, and are again met with on the branches of Compton's creek. On the farm

of Mr. George W. Marriott, there appears to be an extensive deposit, which is accessible in several places; and it is with infinite pleasure that an acknowledgment is made of the great zeal that has induced this gentleman to proceed to the discovery of the marl, as well as to its employment to the full extent of his means. It is to be hoped that the result of his experiment, which cannot be otherwise than one of entire success, will induce others to imitate the praiseworthy example.

On leaving this section of the country a marked change is observed in the character of the fossiliferous beds. In the road leading to Magruder's ferry, erratic masses of indurated sands filled with the impressions of shells are met with, and on descending to the river banks, a deposit analogous to some others previously described as occurring in the lower parts of Anne Arundel county was observed. The deposit now alluded to, is that which has already been referred to as existing at Milltown point. The river bank in this place consists of a bluish black sandy clay about ten feet in elevation, containing a stratum of fossil oysters of about eighteen inches, rising at different parts of the bank from the water level to nearly three feet above high water mark. Above the stratum containing the oysters, that are remarkable for the extraordinary thickness of their shells, there is a thin layer of what at first sight was mistaken for black gravel, but on closer examination proved to be indurated casts of small spiral and bivalve shells. No other deposit answering in its organic relations to the present, has been met with on the Patuxent. The bluish black clay banks at the mouth of Hall's creek, shewed no appearance of fossils of any description, and it contains green particles, which the former does not. On the other hand, ascending the river on the Prince George's side, and examining the arenaceous deposit that forms the basis of the banks, it is found much mixed with particles of green sand. The relative position of this arenaceous deposit, including the clay bed with fossils at Milltown, is believed to be underlying those that are explored at the heads of creeks for marl.

Returning to the river hills, on the road to Nottingham, and about the head waters of the Mataponi, the surface is in many places strewed with silicified masses bearing the impressions of shells. No fossil accumulations analogous to those hitherto described were discovered in this section of the country; but, on the other hand the beds of the streams, or their banks, frequently shew a deposit of the black micaceous sand. Two miles from Nottingham, crossing a branch emptying into Spicer's creek, which makes up from the Patuxent immediately below the village, a bed of this sand appears, covered by horizontal stratum of a compact silicious rock, five inches thick, bearing all the characters of the deposit previously noticed as having been observed at Lyles's mill, in Calvert county. The black micaceous sand was also seen at the crossing of several branches on the road to Upper Marlborough; and in the vicinity of the town, but much above its site, on the plantation of Col. David Crawford, the excavations for a public way have exposed quite an extensive bed of it. At none

of these places could any fossils be detected, except some few very obscure impressions of shells at the last named locality.

The town of Upper Marlborough, on the Western Branch of the Patuxent, is situated upon what may be termed a basin, the geological features of which again differ from those of the surrounding country. These may be studied to most advantage in a bank of about fifty feet in elevation, on the north-east side of the main stream of the Western Branch, the base of which is a fossiliferous stratum reaching to an elevation of twenty feet above the branch. In its upper portion the deposit presents large masses of silico-calcareous rock with numerous impressions of shells and containing fragments of a species of *gryphaea*. It is covered by a mixed green sand; that is, composed of green particles, (*silicate of iron and potash*;) and ordinary siliceous sand. This mixed sand has a depth of from twenty to twenty-five feet, and is itself covered by a red clay. In the fossil deposit, and beneath the indurated masses, the shells, with the exception of the loose valves of the *gryphaea vomer* and *ostrea compressirostra*, are in a very advanced stage of disintegration, yielding to the whole friable material no less than 20 per cent. of carbonate of lime, the balance being a mixture of green sand and silex. There is no doubt that a material thus constituted would prove greatly beneficial, applied as marl to stiff soils.

The soil upon which the town is built is also a mixed green sand, analogous to that covering the indurated masses, as these are invariably reached at an average depth of twelve feet, the water being procured at from twenty to thirty-eight feet, according to information procured from one who was presented to have dug all the wells of the place.

Favoured as the planters of Prince George's in this vicinity undoubtedly are, with a generous soil, they may attach but little value to this resource; but it is not so with all parts of the county. Leaving Upper Marlborough in a southwest direction, a succession of hills are crossed that rise beyond each other, until the country reaches an elevation of between two and three hundred feet, forming the ridge that divides the waters emptying into the Patuxent from those that are carried to the Potomac. From Upper Marlborough as far as Charles' run, a distance of three miles, the hills are generally covered by alternately a clay loam and a sandy loam, very readily improved by clover and plaster, and yielding very fine crops of tobacco and corn. On approaching the ridge, the soil becomes lighter, in many places quite gravelly, but still yields kindly, and is very improveable by ordinary means. But on the ridge, when the country is no longer hilly, or at most only gently undulating, the soil is commonly a stiff clay, though sometimes an unmixed sand, both in a very unimproved condition. It is here that marl beds become desirable, and there is reason to believe that they will be found.

Near the head of the Piscataway, which empties into the Potomac, Mr. Nathaniel T. Rantin has dug at the source of a branch that leads to this run, and reached a greenish sandy clay, found to contain numerous impressions of shells, frag-

ments of bones belonging to the *delphinus*, and sharks' teeth. No doubt is entertained that by continuing the excavation two or three feet further, the fossil deposit constituting a shell-marl of very good quality will be found; and if found here, there is every reason to expect its recurrence at the heads of all the small water-courses making into the Piscataway run.

No part of the country is more in want of such a means of improvement as is afforded by marl, than the portion now referred to. Every exertion, therefore, should be made to procure it; and if the attending circumstances are elsewhere such as in the situation just mentioned, no expense of labour, nor money, can be incurred in raising and applying it, that will not be amply repaid by its good effects. The impoverished condition of the soil, however, requires some precaution in its use.

It has already been stated that the soil in the part of the county now under examination, is mostly a stiff clay, and sometimes almost a pure sand; yet it is believed that both can be greatly improved by marling. The mode that may be recommended for conducting the operation, is the following. Having first prepared the pit, with reference to its easy drainage, so that the marl can be extracted in a dry state, it should be hauled upon the field previously to its being broken up by the plough, in the proportion of one hundred and fifty, for a light and sandy soil, and three hundred bushels to the acre for a stiff clayey soil, and deposited in heaps of a proper size, at the most convenient distances, to be afterwards equally spread out. If the planter or farmer have at his command a sufficient quantity of stable or cow-pen manure, or any other kind of manure, leaves and offal of every description, it should be carried out at the same time, and distributed in the same manner as the marl, in alternating heaps, which are afterwards to be simultaneously scattered over the field. The whole is then ploughed in, and incorporated, as intimately as possible, with the soil, being thus prepared to receive the grain. Should this operation have been performed upon a light sandy soil, it is advisable that the first seeding be in rye, using one bushel to the acre, not for the purpose of obtaining a crop, but with a view of turning it in, in its green state, during the ensuing spring. This may be done in time, on the listing plan, to dispose of the land for a plantation in corn, the result of which will already indicate the benefits derived from the marl.—The corn may be removed, the field is to be seeded with oats, followed by clover, in the spring, and when the oats have been cropped, if the clover is found to have set well, it must be plastered, having a care to perform this operation at those seasons, and during that condition of the atmosphere when abundant dews may be expected. In the fall of the second year, the clover being fit, is cut, and without grazing it must be returned to the soil, with an additional one hundred and fifty bushels of marl. Rye may then again be sowed upon it, using from one peck to half a bushel, cropped, corn made to follow, then oats and clover in a regular system of rotation, turning in the clover, ungrazed, every fourth year, and omitting any further applica-

tion of the marl. On the other hand, if the marling has been effected on a stiff soil, three hundred bushels being applied in the manner stated above, wheat may be immediately sown, adding clover in the spring, which at the proper time should be well sprinkled with plaster, using from one and a half to two bushels to the acre. At the beginning of the fourth year, should every thing have gone on favourably, three hundred bushels more of the marl, are to be hauled out, spread upon the clover lay, and the whole ploughed in. The land may then be put into tobacco, to be succeeded by wheat and clover. It is firmly believed that a system like this, pursued with perseverance and energy, would convert the lands, on what is called the ridge portion of Prince George's county, from a state of almost complete barrenness, to one of permanent fertility. Reference has already been made to the other uses to which the marl may be applied. The marl-pit should always remain open, and its contents be freely distributed wherever putrescible matter of any kind is apt to accumulate.

Between Upper Marlborough and Queen Anne, the country is hilly, and the soil varies between a sandy loam and a clayey loam, yielding good crops of tobacco and corn. Indications of a continuation in the fossiliferous deposits are numerous. On Mrs. Hill's plantation, which is near the town landing, a well has been sunk, adjoining the mansion house, situated on the most elevated spot of the estate, to the depth of sixty feet, and a deposit is reported to have been reached at the depth of fifty feet, containing vertebræ of fish, sharks' teeth, with numerous shells. In a ravine, on the same estate, the bluish sandy clay is uncovered, and exhibits numerous impressions of shells. This clay is micaceous, and contains particles of green sand. On the river side, the banks, that are here low, are also composed of a mixed green sand. Towards the Mount Pleasant ferry, the mixed green sand forms the soil of the country, and at a quarter of a mile from the ferry, a red clay was seen covering a stratum of almost pure green sand. This red clay appears to be intimately associated with the sand; but their exact relative position has not been satisfactorily determined; although, as just stated, the clay was found overlying the sand. Yet wherever the red clay occurs, the green particles are seen in the adjoining washes, which could not be traced to any distinct deposit of the sand. This red clay and the green sand were seen in several places between the Mount Pleasant ferry and the South river ferry, especially on descending the hill from the residence of Mr. William Stewart. Finally, in the vicinity of Queen Ann, a fossiliferous deposit of a bluish sandy clay, with green particles, and characterized by the presence of a species of very large oysters, has been discovered on the plantation of Dr. Claggett. But the frequent rains that fell at this period of the geological campaign, together with other casualties, prevented as minute an examination of this section of the country to be made, as would have been desirable.

Attention, Husbandmen—This is the season of the year when every good husbandman should be looking to his sheep and lambs—cows and calves

—oxen and horses, barns and stables, fences and farming utensils. The sheep should be protected from March's chilling and pitiless storms; furnished with a proper rack for hay; with water, salt, and beans or corn at proper seasons; the milk cows and working oxen should be fed often, and with but little at a time; seasonably watered, carded and fed, now and then, (in addition to hay) the latter with corn or grain, and the former with cabbages, carrots, or other vegetables. Carding and rubbing are all important to horned cattle and horses at this season of the year; give them these attentions, and they will be in better order with two-thirds of the hay, &c. that would otherwise be required.

SILK SOCIETY OF PHILADELPHIA.

At the very large meeting recently holden in this city for the purpose of establishing a company, Nicholas Biddle presided. Some of the most prominent individuals of the city are engaged to receive subscriptions to the shares. When 1000 shares are subscribed for, it is proposed to purchase the extensive establishment of Messrs. Ashton & Jackson. The preamble to the report contains many very interesting facts—many of which may be new to our agricultural friends.

The mulberry trees flourish best in cultivated fields, and one of the most approved methods of obtaining the leaves for the food of the silk worm, is from mulberry hedges, which may be made, and securely used for the division of a farm, into fields, instead of the usual fences, much more costly, and always exposed to injury and decay.

The periods of the year in which the silk worm is fed, and when only the attention of the farmer and his family is required for their care and management, are those in which the usual labor of a farmer are, for a great portion of those periods, not very great: and a large amount of the attention and industry which are required by the silk worm when feeding, and making the cocoon, are most properly furnished by females, and by children from 12 to 16 years of age. In the winter season, the family fireside of the farmer, now comparatively without employment, may be engaged in reeling silk from the cocoons, a most agreeable and profitable occupation for that part of the year.

A large amount of free labor will be brought into employ, and the domestic silk trade of the north will one day rival that of cotton, rice and tobacco at the south.

In Pennsylvania there are already many hundred acres planted with the mulberry. These plantations will be increased when it shall be known that a certain market exists for the cocoons, and for reeled silk at a fair price. Small lots of cocoons are offered daily and the committee entertain the belief that in 1837, one fourth of the supply for a manufactory of a moderate extent can be obtained from American cocoons. In three or four years, a manufactory with machinery and buildings, requiring a capital of \$100,000, may be supplied with American silk.

Philadelphia Saturday Evening Courier.

Beet Sugar—This subject is beginning to attract great attention in the U. States. Its cultivation appears to be simple, and lucrative, and the climate of our country is well adapted to it. It

is becoming one of the staple articles of France, although it is not many years since it was in its infancy there. Bonaparte we believe patronised its manufacture, and encouraged its culture, as he justly conceived that no nation could be independent while it annually exported millions of dollars for sugar. A friend favored us with two or three selections on the subject, which were published in the Record, a few weeks since. We are happy to see that many of our Chester county gardeners and agriculturists are turning their attention to it.—*Westchester, Pa. Record.*

SILK CULTURE.

There is something truly inspiring in the progress which is making in this branch of industry. Fifteen years ago, if any one had endeavored to ascertain what could be done in the business, he would have been told that even in the beautiful climate of Italy it is necessary to erect expensive buildings to protect the worms; that stoves and thermometers were indispensable to preserve a uniform temperature, and that many thousand dollars worth of intricate machinery were required for the filature or reeling; and after all, nothing but sewing silk could be made, without employing the skill of European workmen. Let us inquire for a moment what has been done by the free efforts of a free country, by mere American enterprise, unaided by tariffs or bounties. The inhabitants of Mansfield, Conn. proved that our New England climate was better for the business than that of Italy; while houses are necessary there, the worms may even be fed in our dryer atmosphere in open sheds. The example of Mansfield was followed by many other places, and it is curious to observe how Yankee enterprise and ingenuity has introduced improvements at every step. It was found that instead of the European mode of feeding all the worms together, and thereby exhausting the trees, and creating for a few weeks a pressing call for labor, it was wiser to divide them into classes, hatch them at different times, and distribute labor through two or three months instead of six weeks. It was also found that instead of the complicate and costly machinery of the old world, a cheap and simple reel invented by a New England quaker will answer a better purpose, and is already copied and used in the manufactories of France.

So we go. The market for the cocoons is brisk and ready, and the price is more staple and unvarying than that of our great staple wool. Our farmers and our farmers' wives and daughters are entering spiritedly in the business. We have seen many beautiful specimens of silk in this and the neighboring towns, and among others some made last summer by Mrs. Charlotte C. Clay, of Putney, who had never before seen a silk worm in her life. We have seen a handsome pattern of a vesting woven by a lady at her first attempt; and we are told that except the using rods made of steel instead of cane, it is as easy, and even easier to weave silk than cotton and woollen. No one can examine this subject without acknowledging its interest. It must be that the time is at hand when we shall receive as much for the silk of New England, as is now received for the staple of wool, and that too without materially diminishing the other products of the soil.—*Brattleboro (Vt.) Democrat.*

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 75	—
CATTLE, on the hoof,.....	100lbs	6 50	8 50
CORN, yellow,.....	bushel.	90	91
White,.....	"	85	86
COTTON, Virginia,.....	pound	—	—
North Carolina,.....	"	—	—
Upland,.....	"	18 1/2	20
Louisiana 20a21-Alabama	"	18	21
FEATHERS,.....	pound.	50	—
FLAXSEED,.....	bushel.	1 62	1 75
FLOUR & MEAL—Best wh. wh't fam.	barrel.	12 00	13 00
Do. do. baker's.....	"	—	—
Do. do. Superfine, ex.	"	10 00	10 25
SuperHow. st. in good de'd	"	9 75	10 73 1/2
" wagon price,	"	10 9	50
City Mills, super.....	"	9 50	dull
Do extra.....	"	9 50	—
Susquehanna,.....	"	—	10 50
Rye,.....	"	7 25	7 50
Kiln-dried Meal, in hhds.	hhd.	—	21 50
do. in bbls.	bbl.	4 87	5 00
GRASS SEEDS, red Clover,.....	bushel.	8 00	8 50
Timothy (herds of the north)	"	3 25	4 00
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	7 75	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	16	—
second,.....	"	14	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	62	65
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 75	—
Ground,.....	barrel.	1 50	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 12	1 25
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 50	4 50
" brown and red,.....	"	4 50	0 00
" fine red,.....	"	7 00	7 90
" wrappery, suitable	"	—	—
for segars,.....	"	5 00	10 00
" yellow and red,.....	"	6 00	8 00
" good yellow,.....	"	8 00	12 90
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	4 00	5 00
" ground leaf, ..	"	5 00	8 00
Virginia,.....	"	7 00	14 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	8 00	14 00
WHEAT, white,.....	bushel.	—	2 15
Red, best,.....	"	1 75	2 05
fair to good 180a200 inferior,	"	1 20	1 60
WHISKEY, 1st pf. in bbls.	gallon.	42	42 1/2
" in hhds.	"	39 1/2	—
" wagon price, ..	"	36	37
WAGON FREIGHTS, to Pittsburgh, ..	100 lbs	1 75	—
To Wheeling, ..	"	2 00	—
WOOL, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino, ..	"	45 50	28 30
Three fourths Merino, ..	"	42 45	26 28
One half do.....	"	38 42	26 28
Common & one fourth Meri.	"	35 38	26 28
Pulled,.....	"	38 40	26 28

Howard st. Flour, sales limited, receipts very light.

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Legislative protection to agriculture—Work for April—Advantages of Spring Wheat—Account of a visit to Mr. Beltzhoover's Farm—Culture of the Rhubarb plant—Use of Plaster of Paris—Treatment of Meadows—Compliment noticed—Winter killed wheat—Report in the Maryland legislature on encouraging the silk and beet culture—Selection of Hogs—Geological Survey continued—Duties of the husbandman—Notice of the Philadelphia Silk Society—Beet culture—Silk do.—Advertisements, &c.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	—	—
BACON, hams, new, Balt. cured....	pound.	17	18
Shoulders,..... do.....	"	—	15
Middlings,..... do.....	"	—	15
Assorted, country,.....	"	—	14
BUTTER, printed, in lbs. & half lbs.	"	25	37
Roll,.....	"	20	28
CIDER,.....	barrel.	1 00	1 25
CALVES, three to six weeks old....	each.	4 50	6 00
Cows, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	1 93
CHOP RYE,.....	"	—	2 25
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 50	—
Mackerel, No. 1, ————No. 2	"	9 50	10 50
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	—
LARD,.....	pound.	16	17

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,..... par	Farmers Bank of Virginia 1 1/2
Branch at Baltimore,..... do	Bank of Virginia,..... 1
Other Branches,..... do	Branch at Fredericksburg do
MARYLAND.	Petersburg,..... do
Banks in Baltimore,..... par	Norfolk,..... do
Hagerstown,..... 1/2 a	Winchester,..... do
Frederick,..... do	Lynchburg,..... 1
Westminster,..... do	Danville,..... 1
Farmers' Bank of Mary'd, do	Bank of the Valley, ... 1a2
Do. payable at Easton, ... 1/2	Branch at Romney, 1
Salisbury, 1 per ct. dis.	Do. Charlestown, ... do
Cumberland,..... do	Do. Leesburg,..... 1
Millington,..... do	Wheeling Banks, ... 2 1/2 a3
DISTRICT.	Ohio Banks, generally 4a5
Washington, } Banks, 3.	New Jersey Banks gen. 2a2 1/2
Georgetown, } Banks, 3.	New York City,..... 1a
Alexandria, } Banks, 3.	New York State, ... 3a3 1/2
PENNSYLVANIA.	Massachusetts, ... 2 1/2 a3
Philadelphia,..... 1a	Connecticut, ... 2 1/2 a3
Chambersburg,..... 1	New Hampshire, ... 2 1/2 a3
Gettysburg,..... do	Maine,..... 2 1/2 a3
Pittsburg,..... 2a2 1/2	Rhode Island, ... 2 1/2
York,..... 1a	North Carolina, ... 3 1/2 a4
Other Pennsylvania Bks. 1 1/2 a2	South Carolina, ... 3 1/2 a4
Delaware [under \$5]..... 3a4	Georgia,..... 4a5
Do. [over \$5]..... 2a3	New Orleans,..... 6a7
Michigan Banks,..... 6a	
Canadian do..... 6a	

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth street, feb 28—4t Philadelphia.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t. Baltimore, Md.

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herds Grass Seed.

J. S. EASTMAN.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution.

ap 4 J. S. E.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do. exclusive of the wheels, shafts and axle,	60
For applying the machinery to a common cart	45
For the machinery alone	40
Including the patent fee in each case.	fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz. papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

SETH WHALEN, P. M.

Feb. 1837—23

Whalen's store, New York.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & CO.

mh 7

Light, near Pratt street wharf.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 50.

BALTIMORE, MD. APRIL 11, 1837.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE; TUESDAY, APRIL 11, 1837.

MACHINE FOR SOWING CLOVER SEED.

The Chambersburg "*Franklin Repository*" states, that Mr. Richard Woods, of that place, has invented a machine which will only cost \$3, that will, in sowing but a single bushel, pay for itself, and that such is the construction of the machine, that the seed can be sown from it in windy weather. It states among the advantages of the machine, that a bushel of seed sown from it will be sufficient for 15 acres. This would be 4-4-15lbs. to the acre. Now we cannot, of course, as we have never seen the machine tried, speak of its merits; but if it will, by any operation competent to be performed by it, make a bushel of seed sow 15 acres sufficiently thick to keep down weedy obtruders, and make full crops of hay, it is certainly a worthy addition to the stock of labor-saving machinery. We, however, are incredulous upon this subject; not that we are disposed to question the efficacy of this invention, but we hold it to be perfectly demonstrable, that less than from 8 to 12 lbs. of seed should never be sown upon an acre of ground. That from the slovenly manner in which clover and other grass seeds are put in, there are great losses, we are fully sensible—the wind wafts a great portion away—it casts a great excess upon one point of the field, and leaves another part bare—these inconveniences, may be, and we presume are, avoided by the operation and regularity of this machine, in depositing the seed, but making all proper allowances upon this score, we should be unwilling to trust a field of ours of 15 acres in extent to be seeded with less than 2 bushels of seed. He that sets a meadow with grass for hay, should do so in a way to cover the ground, in order that he may be certain of excluding weeds and unprofitable plants of all kinds, and less than the quantity na-

med we think will not effect this object, even with the aid of the best constructed machine for sowing. If sown by the hand, we would never attempt to set a clover field with less than twelve pounds to the acre. We know that much less seed is recommended by practical farmers. We have sometimes heard them talk of 4 lbs. being sufficient; but we have always doubted it, and especially when we have seen the seed cast upon the surface of grain fields, and left to find their way into the earth through the cracks and crannies produced by alternate freezings and thawings. No grass seed should, in our opinion, be put in without harrowing and rolling, whether upon the surface of a grain field, or upon that of freshly broken up ground.

BROOKS' SILK SPINNER AND TWISTER.

This machine appears to be winning favor in every quarter where it has been exhibited. At the meeting of the State Agricultural Society lately held at Albany, N. Y., a committee was appointed to examine it, who declare, "that they saw the machine in operation, and critically examined it, and that they are of opinion that it is not only an ingenious invention, but in their judgment, cannot fail of becoming eminently useful. It seems to solve the problem which has induced great doubt, whether the culture of silk in the United States would be profitably prosecuted, from the difficulty of good reeling silk from cocoons without considerable manual instruction. The committee are satisfied that "an ingenious female can almost immediately learn to reel on Mr. Brooks' machines, in a perfect manner."

To show the facility with which a perfect knowledge of the use of this machine may be obtained, we copy the following certificate from the New England Farmer of the 29th ult.:

"TO THE PUBLIC.

"This may certify that last 12th month, [Dec.] I went to Adam Brooks', in Scituate, Massachusetts, to learn to spin silk on his machine. I expected before I saw it, that it would take me a long time to learn to spin. The first morning I ever saw the machine, I commenced spinning, and succeeded beyond my expectation. I was surprised that sewing silk could be manufactured with so little trouble. I immediately purchased one of Brooks' machines, and have used it to my

satisfaction. I have with the assistance of a boy 11 years old, spun 150 skeins of sewing silk in eight hours, from the cocoons, ready for cleansing and coloring—in all have spun 9 lbs. ready for the market. And in my using the machine, I have met with no difficulty, neither has it got out of repair. Brooks' machine, in my estimation, is far preferable to any other now in use, and I would highly recommend it to all others engaged in the business, and are about purchasing.

RACHEL W. HEALEY.

North Marshfield, 3d mo. 29th, 1837."

PROSPECTS OF THE GROWING CROPS.

We append below, an article which will be read with interest by every agriculturist. So far as our own information goes, derived from correspondence and personal conversations with many extensive grain growers, it is unfavorable to a good crop the current season. The alternate freezings and thawings of the past winter, it is represented on all hands, has done much mischief; but from the backwardness of the present spring, vegetation has been kept back so much, as to render it difficult as yet to tell the extent of the injury inflicted, and as fears are sometimes too great to enable the judgment to form a correct opinion, we sincerely hope that less destruction of the grain has been effected than is at present apprehended. We have inspected several fields of wheat, ourselves, where the frost has been rife in its spewings up, and doubtless destroyed much; but at this early period we think it entirely unsafe in practice to break up the wheat lands, and that it would be infinitely more consonant with the principles of just economy, to give a few weeks more time in order to let the growing grain have proper scope for vegetation. It may be said, that the season for sowing oats and preparing corn ground is at hand. True, this is the fact; but then ten days or two weeks delay, if accompanied by genial weather, might dispel the fears now entertained, and although it would be then late, either to put in oats or get ready for corn, still there would be time enough left to ensure a crop of either. The oats might then be harrowed in upon the wheat fields, and would mature in season.

By the way, does not a large portion of the winter killing of grain, arise from the habit of harrowing instead of ploughing in the fall seeded grain? Would it not always be safest to turn it

in with the plough? We think two good effects would result; first the roots of the young plants, being more deeply embedded, would stand a much better chance of escaping the disasters of weather; and, secondly, would derive much more nourishment in the spring and summer from the soil, and be the better able to resist the consequences of drought. There is another suggestion, which strikes us would be productive of beneficial results, and we shall throw it out for the reflection of those of longer experience than ourselves. Would it not be a good plan to delay sowing grain until just before the frost closes the ground. If ploughed in then, it would remain secure from harm throughout the winter, and vegetate with the earliest influence of the spring's sun. Besides escaping the ills of freezing out, it would also escape the ravages of the fly of autumn.

Those who have the opportunity of obtaining seed of the Spring variety of wheat, should, we think, by all means sow it through their fall sown fields, wherever serious injury has been effected. This would be less expensive and less laborious than reploughing for either oats or corn, and, from the experience of eastern gentlemen, we are led to believe, that good crops of wheat would thus be secured.

[From the Baltimore American]

THE GROWING CROPS—BREAD STUFFS.

We have as yet seen but few accounts in relation to the condition and promise of the growing wheat crop of Maryland. The partial reports which have reached us are unfavorable, but hopes were entertained that a propitious season might yet impart an improved aspect to the appearance of the fields.

A letter to the Editors of the National Intelligencer, from the mountain region of Virginia, dated the 28th ultimo, says:—"Our wheat crop is miserable, and beyond recovery. In some instances the wheat land has been broken up, and prepared for oats or corn. But the farmers are having a fine season for sowing oats and planting corn, which I trust will continue and compensate somewhat for the almost entire failure of the wheat crop.

The market for Breadstuffs is on the decline, in all the principal Atlantic ports, in consequence of the large stocks of foreign wheats on hand, and the expectation of supplies from the interior on the opening of the canals and rivers. It is stated that there are about 100,000 bushels of wheat and rye, and from 30,000 to 35,000 barrels of flour at Pittsburg, waiting to be forwarded to Philadelphia by the Pennsylvania canals. In the city of New York, the stock of Western flour is said to amount to 30,000 barrels, and the North River just about to open. The stocks of Foreign Wheat in that market unsold are said to amount to at least half a million of bushels. In Baltimore there is unsold a considerable amount of Foreign Wheat.

A correspondent of the New York American,

who writes on the side of the distilleries, admits that the quantity of grain distilled annually in the cities of New York and Brooklyn alone, amounts to 12,000,000 bushels!

The following remarks on the subject of imported wheats are from the Philadelphia Commercial List of Saturday!

FOREIGN WHEAT.

"The first supplies (of Wheat) may, and no doubt will, be drawn from *Bond* in England, but as most of the wheat in *Bond* has been there for three or four years, it is not likely that any quantity of really good quality can be there obtained."

The above is from an article which appeared in our paper on the 1st of October last, relative to the "Foreign and Domestic Grain Trade" of this country. We claim attention to it at present, in consequence of the circumstances which have since attended that trade. It is well known that the first arrivals of wheat last fall, were from *Bond* in England, and none of it proved perfectly sound. The same was the case with the heavy importations which succeeded from the North of Europe, without the Baltic. A large portion of this wheat was taken as it arrived by millions, who had then some domestic wheat on hand, and from the mixture they were enabled to make a flour that went into pretty general consumption. When our interior communications closed for the winter, and domestic wheat could no longer be had to mix with the foreign, flour was made exclusively of the latter, which, however, has been found not to suit the taste of the American consumer, and at prices much below that of domestic flour, the sales of it through the winter have been very inconsiderable. The favorable sales of foreign wheat in the fall, have produced heavy importations in the interim, and the stock in New York is now considered large, but, unfortunately, not one-tenth of it is admitted to be perfectly sound. Millers that could not buy in the winter, as communication with their mills was closed, are unwilling to buy now, (except some very select samples) because they cannot obtain domestic Wheat to mix with the foreign. Nor is there the least prospect that the Millers around New York, Philadelphia and Baltimore, will be able to obtain such a quantity of domestic wheat, as would enable them to work up much of the foreign before another harvest. Thus are we placed in the singular situation of possessing in the three principal flour marts, as much wheat as, if sound, would make a quantity of flour equal to that inspected in *two weeks* last spring, in these three places together and on which we are relying for bread, but which is unavailable, because of its quality, and because Millers possess not the means of improving the quality to any extent. Had the imported wheat proved sound, it would now find a pretty ready market at fair prices. But, under these circumstances, it is to be apprehended that importers will sustain losses on it, as it is understood that less than \$2 per bushel they will not, on an average, be remunerated on late arrivals. Information of the state of our markets has already gone out, that will stop further shipments from Europe, and circumstances may arise, that will induce the holders of foreign wheat, at any fur-

ther material depression, to take the benefit of drawback, and re-export it to Europe. They had better let us starve for wheat bread, than bring in unsound wheat.

Wheat.—A very large sale of wheat was made in New York on Monday, at a decline of forty cents on the bushel. The supply of wheat is very large, and prices must decline still farther. The ship *St. Lawrence*, belonging to this port, has just arrived there with a full cargo.—*Prov. Jour.*

[It is but fair to state, that the wheat was of foreign growth, and greatly impaired in quality.—*Ed. F. & G.*]

We are sorry to say that the wheat crop in this county, (Washington, Md.) is generally very unpromising, that, in many instances our farmers believe they will not reap as much as they sowed, and that, in other instances they are ploughing up their fields.* This, with the derangement in the money market presents rather a cheerless prospect for the coming year.—*Hagerstown Torchlight.*

[*It is certainly too soon to take so important a step.—*Ed. F. & G.*]

The Growing Grain.—We regret to say that the present appearance of the growing grain in this region, is any thing but promising. It is still hoped that a favorable season will improve its condition. God grant that it may.—*Fredericktown Examiner.*

A LARGE EAR OF CORN.

We learn from the "Advocate" published at Denton, Caroline county, Md. that Mr. *Edward Carpenter*, of Tuckahoe Neck in that county, raised the past season, an ear of corn having on it *fourteen hundred and eighty grains*. If the grains are large, this ear would yield considerably above a quart of corn.

While on the subject of large ears, we might as well make our grateful acknowledgements to our friend of the *Advocate*, for his present of a small number of grains taken from an ear on which there were 1200 grains.

Dutton Corn—It is stated in the Hampshire Gazette, that Mr. Bowers last year raised 102½ bushels of this variety of corn to the acre, with little or no more labor and expense, than is usually attending the cultivation of an acre of corn, where but 40 bushels are harvested. The corn was planted in hills 2½ feet apart and 4 stalks in the hill; it was not topped, and cut up about the 20th of September.

To destroy Lice on cattle—1. Make a decoction of tobacco, or an ointment of Scotch snuff and fish oil, and wash, or rub the infested parts.
2. Make a strong tea of Lark-spurs and wash the animal in all parts where the lice abound, and they will be speedily eradicated.

CULTURE OF RUTA BAGA.

Mr. James M. Lawton, in a communication in the Cultivator, gives the following rules for the preparation of the soil, and the culture of the Ruta Baga. The conclusions at which he arrives are the result of many years experience and close observation.

1. The land, he says properly adapted to the nature of the plant, is a strong loam.

2. The land should be ploughed early in the spring, in order that the sward, if it have one, may rot by the 10th of June.

3. The land should be made perfectly mellow and smooth, and a good coat of manure, that is fine, say sheep or barn manure should be put on.

4. Throw the land into ridges 24 inches apart, with a small horse plough.

5. Roll down the ridges by a light roller, or other instrument; make a light furrow, say an inch deep, drill in the seed on or about the 15th of June: the seed should be 10 inches apart in the drill, and when the plants come up, all but one plant should be pulled up.

6. Dress the plants three times in a season, that is, keep the weeds out, and the earth stirred about the plants; as they are first breaking the ground they must be powdered with plaster of Paris,—and twice afterwards also—when they receive the two last hoeings.

Mr. Lawton further adds, that he has found the above rules, when closely followed, never to fail in producing a good crop; that last year he raised from 90 rods, that is from half an acre and 10 perches of land, 605 bushels of sound, close-grained Ruta бага turnips, on land a distance from the house and barn, on which, never to his knowledge, a spoonful of manure had been placed until within a few days of the time he put the seed in the ground. This product was equal to 1075 5-9 bushels per acre. The success of Mr. Lawton should surely serve to stimulate every farmer and planter to at least appropriate an acre or two to the culture of this excellent and hardy root. Unlike the other members of the turnip family, it will preserve through the hardest winter in the field, if the precaution be taken to throw a furrow up against the rows just as the hard frosts set in, and may be drawn thence for use, as occasion may suit. They are also more firm in meat, and more nutritious than any other turnip. Horses and cows fed upon them do not scour as when kept on the other varieties.

HORSES, THEIR DISEASES, AND CURES.

Loss of appetite.—There are various causes, mediate and immediate, which tend to deprive these noble animals of their appetite, and while by early attention to the first indication of the effect having been produced, the evil may be remedied before any serious ill consequences are produced, if neglected, a condition of the stomach may be brought about that will defy the efficacy of all appliances.

On the first symptom appearing that your horse does not consume his usual quantity of food, means should be resorted to to restore the stomach to its proper functions. All work horses, which are necessarily fed on coarse food, require purgatives on each return of spring: like the human being they become tired of the same kind of meat, and require change. Again, their mangers require periodical cleansing, for it stands to reason that from long neglect, an accumulation of matter offensive to their sense of smell must adhere to them, which by the action of the confined air of the stable, will ultimately prove injurious. Would it not be well, then, at proper periods to cause purifications to be made? This could readily be effected by washing the troughs thoroughly four or five times a year with strong wood-ley or lime water.

But to proceed to the remedies for the loss of appetite.

As soon as you discover that your horse does not eat his food, you should lose no time in treating him. If he appears feverish, he should be freely bled, after which, dissolve a quarter of an ounce of *Assafetida*, 1 table spoonful of salt, in a quart of sassafras tea, to be given as a drench.

The following day dissolve a pound of Glauber salts in a quart of warm water, and give this as a drench.

After this has thoroughly acted, a handful of mustard seed should be mixed in his food for a few days, when his appetite will be most generally restored.

A table spoonful of powdered antimony, given two nights in succession, will serve as an excellent tonic, and seldom fail in restoring the appetite.

While your horse is taking these restoratives, he should be tempted to eat, by being given warm and generous messes, in small quantities at a time, and often.

Diarrhea or purging.—To cure this disease, take quarter of an ounce of pulverized *Rosin*, *castile soap* 5 drachms, *succhorine aloes* 6 do., mix the whole into a ball and give it to your horse.

Should this prove inefficient, give him a ball compounded as follows:

Antimony 5 drachms, *opium* 1 drachm, *powdered ginger* 4 drachms; mix the whole in honey or syrup of any kind, and give it to him in a ball.

Should your stable not be a tight one, while under the operation of the last medicine, he should be kept warm, by throwing a blanket over him.

Bots or Grubs.—Take 1 pint new milk, 1 pint of molasses; mix them and drench the horse with it warm. In an hour afterwards give him 2 table spoonful of *copperas*, dissolved in a pint of warm water. In about half an hour, repeat the dose.

In an hour afterwards, drench him with a pint of linseed or fish oil, or any other purgative, that may be convenient, which will act promptly.

Should he not void the worms after this treatment, you may give him a quart of strong brine in a drench.

A pint of the strong decoction of tobacco, has been known to destroy the bots when most other medicines have failed; but you must observe, that always after giving vermifuges, you must succeed them by an active purge.

HORTICULTURAL SOCIETY OF PENNSYLVANIA—LIBERAL PREMIUM.

We have been favored with a copy of the advertisement of this society offering premiums for "culinary vegetables, fruits, and flowers, for 1837," and on looking over them we are gratified to find that its members are influenced by feelings of enlarged liberality.

We comply with their request to publish the subjoined, with pleasure; the generous spirit which animates the institution is to be seen in this noble effort to preserve one of the most delicious of fruits, from its most deadly enemy, and we sincerely hope that the pecuniary stimulant they offer will serve to urge the nursery men and horticulturists of our country, to turn their attention seriously towards the discovery of the preventive in question.

BLIGHT IN PEAR TREES.

The Pennsylvania Horticultural Society, anxious to promote the discovery of a preventive for the disease usually termed *blight* in Pear Trees, offers a premium of FIVE HUNDRED DOLLARS, to be paid the person who shall discover and make public an effectual means of preventing its attack. The premium not to be awarded until after the expiration of three years from the publication of the preventive, nor until the Society shall be fully satisfied of its efficacy. Communications on the subject may be addressed per mail to DAVID LANDRETH, Cor. Secretary, Philada.

AMERICAN SILK.—The editor of the Coatesville (Pennsylvania) Advertiser, has in his possession some beautiful specimens of American sewing silk manufactured from domestic growth, the worm fed on the Chinese and Italian Mulberry. Among them are specimens manufactured by the lady of Gov. Ritner and Mrs. Jason McMahon.

To raise forward potatoes.—It is stated in the New England Farmer, that potatoes exposed to a warm sun a few days before planting, will be a week more forward than those planted in the common way. As the experiment will cost but little trouble, we think it worth the trial, and would suggest to those who make it, to favor us with the result of their respective experiments, as all such things tend to add to the sum of agricultural knowledge, and to inspire an *esprit du corps*, highly promotive of the general interests of husbandmen.

Kentucky Enterprise.—A very large and highly respectable meeting was held at Frankfort, Ky. on the 20th of March, at which Jacob Surgeant, Esq. presided, for the purpose of forming a joint stock company to import the best breeds of stock from England. A constitution being reported, \$8,000 were immediately subscribed. This is in perfect keeping with the enlightened and public spirited citizens of gallant "old Kentucky." Without detracting from the merits of the people of any other state in the Union, it may be justly said of her, that she is always in the van whenever good works are to be performed, or deeds of daring achieved. In peace her generous sons are ever busy in the promotion of objects of practical utility, and in hours of peril, when our beloved country have been threatened with danger, who amongst us ever went farther than the brave and chivalric citizens of that patriotic state, to throw back the adverse current? None! In the march of agricultural melioration, their course have been onward—in the improvement of the breed of that noble animal, the horse, or those of cattle, but few, if any, of the states can boast of more laudable or well directed zeal. These facts are attested by the numerous *studs* of the former, and extensive *herds* of the latter, owned by gentlemen there,—and now, not content with the slow progress of individual enterprise, but animated by the ennobling desire of promptly reaching the goal of the ambition of her people, an association has been formed to concentrate their strength, in order that time and space may be overcome by an united effort.

In wishing the gentlemen who comprise this association, entire success, we but obey the dic-

tates of our heart, and yield obedience to an impulse, which we could not resist without doing a violence to our feelings, that would prove us recreant to those principles of patriotism, which it has been the object of our study to cultivate, as being among those peerless virtues, which dignify humanity, impart symmetry to human character, and beautify and adorn the walks of life.

We observe that Indigo seed has been introduced into South Carolina from the East Indies, with a view of its being cultivated.

Rock Salt.—We learn from the Genesee Farmer, that at the Saline reservation on Salt River, an Artesian well for the purpose of procuring salt water, has been sunk to the depth of 300 feet.—For sixty feet of this distance the auger passed through solid rock salt. Here is a supply for the immense population destined at no great distance of time to throng the valley of the father of rivers.

New method of propagating apple trees.—A new plan for increasing plantations of apple trees, has lately been carried into extensive practice by the horticulturists of Bohemia. Neither seeds nor grafting are required. The process is to take shoots from the choicest sorts, insert them in a potato, and plunge both into the ground, leaving but an inch or two of the shoot above the surface. The potato nourishes the shoot, while it pushes out roots, and the shoot gradually grows up and becomes a beautiful tree, bearing the best fruit, without requiring to be grafted.

Whatever may be the success of the undertaking, its novelty is at least an inducement to give it a fair trial.

Radishes.—This root being liable to be eaten by worms, the following method of raising them is recommended in the *Farmer's Assistant*:

"Take equal quantities of buckwheat bran and fresh horse dung, and mix them well and plentifully in the soil by digging. Suddenly after this, a great fermentation will be produced, and great numbers of toad stools will spring up in forty-eight hours. Dig the ground over again, and sow the seed; and the radishes will grow with great rapidity, and be free from the attacks of insects. They will grow uncommonly large."

Roses.—The Philadelphia "*United States Gazette*," of the 7th April, states on the authority of a gentleman who was present at the sale of the furniture and effects of a private establishment, the day before, that a single rose bush sold at auction for \$12 50; another for \$4, &c. These are good prices, and will stimulate the florists to excel in the production of this queen of the floral tribe.

A new motive Power.—We insert in another part of our journal, a communication upon the subject of the discovery of a new motive power by an ingenious citizen of Pittsburg, Pa. We have conversed with the author of the communication, and will do him the justice to say, that he is sanguine of the entire success of his friend's invention, and that from his intelligence and acquaintance with the general principles of mechanics, we should be disposed to believe him competent to judge of the efficiency of the invention in question. He represents to us, that the machinery is so simple that the beholder is lost in astonishment at the magnitude of its results.—Should the expectations of the inventor, and those of the author of the communication, be realized, a new era in the propulsion of vehicles of every denomination is, indeed, about to dawn upon us; for he assures us that it will be equally as applicable to steamboats, naval, and merchant vessels, steam-cars, carriages of burden, as to the plough.

LARGE PRODUCTS.

Mangel Wurtzel.—Mr. Tristram Burges, in a communication in the New-England Farmer, says, that he has been informed that Mr. Bateman, of Newport, R. I., has raised 1,600 bushels of Mangel Wurtzel on an acre. This is truly a prodigious yield, and though we do not question its accuracy, we would be willing to compound for one third the product.

A premium of \$20 was recently awarded by the Massachusetts Agricultural Society, to Mr. Edward C. Sparhawk, of Brighton in that state, for a crop of Rye, raised on 5 acres $1\frac{1}{2}$ rods of land, making an average of about 35 bushels to the acre.

An application was made at the same meeting of this Society, by Mr. Wm. Carter, of Fitchburg, in the state of Massachusetts, for a premium for the greatest quantity of Barley raised on one acre of land. He proved that off of that quantity of land, he had raised by actual admeasurement, 59 bushels of Barley.

BATTLE BETWEEN A WEASEL AND SWALLOWS.—A weasel was observed by some persons in the neighborhood of Garvan, in Scotland, to attack some nests of bank swallows hollowed in the sand. A number of the bravest swallows, placed themselves in battle array, pounced upon him, seized him by the tail, raised his hind feet from the ground, and with great dexterity tumbled him down the declivity, at the top of which the nests were ranged in a row. The invader renewed the attack several times, but was as often repulsed in the same manner as at first, and, being at length worn out by fatigue, yielded up the palm of victory to his vanquishers.

The Tobacco trade.—The following article from a Liverpool Journal, will be read with interest by every tobacco planter in the country, and we sincerely hope that the exertions making by the deputation in England, to effect a reduction of duties, will prove successful.

A deputation consisting of Mr. Maury and Mr. Oxley, representing the American Chamber of Commerce and the Tobacco Association at Liverpool, and of Mr. Russell and Mr. Willis on behalf of the manufacturers of Bristol, is now in London for the purpose of obtaining a reduction upon the duty on tobacco. For this reduction they had a powerful advocate in the late Mr. Huskisson; and it was also proposed by Lord Althorp, when Chancellor of the Exchequer, for the purpose of enforcing their arguments in favour of a reduction of the duty, they have published the following statement of facts illustrative of the trade. The prime cost of American tobacco to the manufacturer has usually averaged 3d to 4d per lb.; the duty is 3s per lb.; the expense of smuggling tobacco by the cargo, from the first cost to that of landing is 9½d per lb.; the smuggler receives per cargo at the rate of 2s 6d per lb.; or in other words a profit of 1s 8½d per lb. Their statement goes on to show that a reduction of duties has increased the consumption so much that the amount of revenue has also increased. In the article of cigars for example, the amount upon which duty was paid in 1828, at the rate of 18s per lb. was 8,600lbs. In 1836, at 9s per lb. 141,600lbs. Thus the revenue derived from this latter source is nine times greater than when the duty was double the present rate. From the above facts, it is obvious, that were the duty so reduced as effectually to put down the smuggler, all the tobacco consumed in the United Kingdom would pay duty. The total consumption of tobacco is estimated at 50,000,000 lbs., of which 22,000,000lbs. only pays duty. But reducing this duty to 1s per lb. the illicit trade would be destroyed, and the consumer would pay to the government 1s per lb. for the remaining 28,000,000lbs. with which he is now supplied by the smuggler at 2s 6d per lb. The expensive establishment of the coast guard service would be thus rendered useless.—*Liverpool Chronicle of March 4.*

A NEW MOTIVE POWER.

BALTIMORE, April 8, 1837.

MR. ROBERTS—When I stated to you the fact of an intimate acquaintance of mine having constructed a machine of almost unlimited propelling power on the Hydrostatic principle, you were so much pleased with the account as to request a communication from me for insertion in your periodical; with that request I cheerfully comply.

The inventor of this wonderful and useful machine is Mr. Theophilus Corbyne, an eminent veterinarian—a native of Scotland, and now residing in Pittsburg, Pa. who while practising his profession, has for the last seven years employed his leisure hours on this subject and has now the satisfaction of seeing his plan matured by having constructed one of twelve horse power, which comes fully up to his most sanguine expectations.

This machine he calls CORBYNE'S HYDROSTATIC PROPELLING MACHINE. In its construction it is too simple to admit of improvement, and as no steam nor heat of any kind is used in its operation, there can be no explosion, therefore in its use life is safe; and should any part break, it is by its simple construction, admirable of speedy repair.

It is applicable to the plough,* and all propelling purposes, and as such it must supercede the use of steam.

A machine of 500 horse power can be worked by one man, and neither its weight or the room required, will be more than one-tenth of the steam engine.

We of the present age, entered on a new era when Fulton brought forth his extended scheme in the application of steam to the propelling of boats on water—in which smoke and vapour supplied the place of canvas. The same age is now bringing forth another era in a more useful and extended scale of operation in this discovery of my friend, who is a philosopher and philanthropist in every sense of those terms.

Although our profession has for several years made us intimately acquainted, visiting each other, and conversing freely, for mutual benefit in our profession—yet true philosopher like, he never intimated to me that he was studying the subject, until on his way to Washington, he called on me and showed the model, which is now in the Patent Office.

With my respects, I am, yours, truly

JOHN HASLAM.

*The inventor is fully under the impression that a plough constructed on the principles of his machine, will be competent to plough 100 acres of ground in a day.

FORTUNE'S FROLICS.—The Rev. Thomas Alexander Frazer, a native of North Carolina, and the Pastor of a Presbyterian Church in this State, has recently been called to the English Peerage, under the title of Baron Lovat. He is a descendant of Lord Lovat, who was attainted of treason, and executed in 1745. The act of attainder having been reversed, Mr. Frazer repaired to England, some four or five years since, to claim his title and estates, and having succeeded in his object, has taken his seat in the House of Lords. We doubt, with the N. York American, whether the Baron Lovat will be as happy or as useful a man as the Presbyterian Pastor.—*Ibid.*

[From the New York Star.]

FACTS OF GEOLOGICAL RESEARCHES IN MAINE.

Dr. Jackson, the state geologist of Maine, accompanied his valuable report by 24 plates drawn by Mr. Graeter, who was with him—also during his tour of three months last summer he collected for the state cabinet 650 specimens of earths, rocks, and minerals, comprising 400 varieties—altogether, with duplicates, amounting to 3,000 specimens. The granite is one of the rich treasures of Maine, or laminated granite, of a white variety, Hallowell, resembling marble in beauty—Felspar for porcelaine. A singular fact is stated, that Connecticut exports feldspar for the

English porcelaine factories: also kaolin or decomposed feldspar abounds; milk white quartz at Machias; valuable glass; limestone and marble in abundance, that at Thomaston is well known. Dr. Jackson says:

There are many improvements to be made in the method of burning lime, and one of these contrivances consists in having lateral arches in which the wood or coal is consumed, while the flame and current of heated air draw through the limestone, and keep it constantly red hot. It is then, when sufficiently burned, drawn out, and more rock is to be added to the top of the charge. By this process the kiln is kept continually red hot, and a great amount of fuel saved. There are also other advantages, no time being lost by waiting for the kiln to cool, and the lime does not become air-slaked.

[This method of burning lime is followed in this vicinity, with equal success and economy. At Brooklandwood, the beautiful estate of Mr. Richard Caton, there are several kilns constructed upon this plan: while a great saving in fuel, say at least 50 per cent. is effected, the quality of the lime is infinitely superior to that burned in the old way.—*Ed. Far. and Gard.*]

We take great pleasure in expressing our sentiments in regard to Edward P. Roberts, Esq. to whose labors the annexed excellent message of Governor Veazey has reference. Devoting himself with an unbounded assiduity, and with an intelligence of no ordinary extent, to whatever he undertakes, this gentleman has applied his energies to the attainment of knowledge in respect to the culture of silk, and has placed the results of his observations before the community in such a form as to render them available to all. "The Silk Manual" should be in the hands of every planter and farmer in the State, for we feel well assured that in no way can their time be more beneficially employed than in the practical application of the information which it contains. That the cultivation of the mulberry and the establishment of the silk culture on the most extended basis are about to take place, cannot we think be doubted after the interest which we find universally entertained in their behalf.—In no section of the Union can silk be more advantageously raised than in Maryland. With a climate peculiarly adapted to the rapid growth of the mulberry, and a soil well suited to its perfection, we have a class of population which has heretofore been nothing but a burthen, but whose labors may be made immensely valuable, and compensate us, in some degree at least, for the infinite trouble which they cost us. We allude to the young negroes, who are too small to perform farm work and at present do nothing but lounge about the huts of their parents, or the kitchens of their masters, and who would be just as competent to tend upon silk worms as grown persons are. In addition it may be stated that of late years the staple products of Maryland have from one cause or another fallen off to an alarming extent. The wheat has been destroyed by severe frosts and the Hessian fly, and the to-

bacco has fallen in price or been in a degree superseded by the growths of other States. It is to the culture of silk then that we are to look to indemnify us in some degree against such a state of things.—*Baltimore American.*

EXECUTIVE DEPARTMENT,
ANNAPOLIS, March 3d, 1837.

Gentlemen of the Senate,

And of the House of Delegates:

We herewith lay before you for your consideration, a publication recently made in the city of Baltimore, by Edward P. Roberts, entitled 'The Silk Manual,' containing, as the title page discloses, directions for sowing, transplanting, and raising the mulberry tree, together with proper instructions for propagating the same by cuttings, layers, &c. &c., as also instructions for the culture of silk, to which are added calculations showing the produce and probable expense of cultivation of from one to ten acres, as 'tested by actual results.'

We also lay before you the letter of Mr. Roberts which accompanied the presentation of the work to the Executive.

The information contained in this publication, is in the highest degree useful, and it is for you to determine upon the propriety and expediency of disseminating that information extensively among the people of this State. That the climate and soil of Maryland, are well adapted to the growth of the mulberry, is a fact within the knowledge and observation of us all, and we think that there is every reason to believe that suitably encouraged, and guided by a proper intelligence on the subject, our people may soon become eminently successful in the culture of silk.

On looking over the manual now before us, we have been forcibly struck with many of the facts presented, and which seem to be sustained by unquestionable authority, and we perceive, with highest satisfaction, that in most of the States North of Maryland, and particularly in Connecticut and Massachusetts, the silk business has been prosecuted on an extensive scale for several years past, and with uniform success. The people of many other States have also lately turned their attention to this important subject, and it is confidently believed by those who are best acquainted with it, that the period is not far distant, when silk will constitute a staple article in some of the States of the Union. This anticipation is founded on the admitted adaptation of our soil and climate to its profitable cultivation, and the high price of the article itself, a pound of raw silk being worth from three to four dollars.

In illustration of this, we may cite as facts on the authority of the honorable Ambrose Spencer, of New York, that in 1834, raw silk to the amount of \$60,000 was produced in the town of Mansfield, Conn. and that the county of Windham, in the same state, produces annually five tons of silk, valued at \$500,000 which if reeled, would be worth double that sum. Many other and equally interesting and important facts are disclosed in the 'manual,' the authentication of which is equally strong. With such evidence as this before us, and much more that might be adduced from the work alluded to, it seems to us that there can be little doubt of the commanding importance of this sub-

ject to the people of Maryland, and we would therefore respectfully suggest to you the propriety of ordering the procurement, from Mr. Roberts, who has secured the copy right of the work, such a number of copies as in your judgment may be deemed sufficient to enlighten the public mind on a matter so deeply effecting the welfare and prosperity of the people.

The price per copy, we have been informed by Mr. Neilson, one of the publishers, will not exceed twenty five cents, provided a large number be ordered for distribution.

With the highest consideration,

We have the honor to be,

Gentlemen, your obedient servant

THOMAS W. VEAZEY.

Which was read, and referred to the Committee on Agriculture.

GEOLOGICAL SURVEY OF MARYLAND.

[CONTINUED.]

SEC. 5.—*Excursion into Allegany county, with preliminary observations on the Geology of the country, from the Atlantic tertiary deposits to the bituminous coal region of Frostburg.*

The geological features that present themselves on travelling westward from the great arenaceous deposits of the Atlantic border, are so very different from those that are offered by the latter, that one whose occupation it is to inquire into the nature of the materials that compose the crust of the earth, as well as into the causes that have produced the various aspects which it assumes, cannot fail to be strongly impressed by the striking contrast they exhibit. In the region of country which has heretofore been the subject of description, although the evidences are manifest of the mighty changes that have blotted out of existence whole tribes of organized bodies, whose habits, it would seem, were uncongenial to the present order of things; since many of their kind are not known to be living, either here or elsewhere; yet every enlightened mind comparing them with the mutations recorded within the historic period, is prepared to say that they have been brought about by the sole operation of time. There are no signs of any violent efforts having been called into requisition to produce them; for the *reliquiae* that record these changes, bear no evidence of displacement. They are found associated and grouped together, much in the same condition as it would be expected to find the genera and species of animals of like order that now inhabit the Chesapeake bay, were any causes to be brought into action that would occasion the retreat of its waters. If next these organic remains be examined attentively in the several divisions of this great marine deposit, distinct indications are obtained of a gradual and progressive advance towards the present order of nature as it exists here. In the first portions of these deep beds of sands and clay which generally limit the ascent of the tide, wherever fossils have been found, they have afforded the types of beings whose analogues are no longer known among the living. They are the *Ammonites*, *Bellemnites* and *Bacculites* of fossil conchologists, associated with others, the genera of which, though not extinct, have no specific representatives in the waters of our ac-

tual oceans. The presence of these remains are considered by geologists as evidences of formations established at a very early period in the development of animalized bodies; and they have given to them the name of *secondary*, making of them a class essentially distinct from those termed *primary*, inasmuch as the latter are never found to contain similar vestiges of material existence possessed of a structure that cannot be traced exclusively to the operation of chemical causes. Immediately afterwards, however, there is perceived the dawning of a new order of things; for in following the strata that contain the fossils in their succeeding order, and in the direction of the retreat of the ocean from which they were deposited, they are found to contain in their second series, together with the more abundant remains of extinct species, some few of those that have their living analogues, at least in some distant oceans. The latter go on increasing in number, until shortly they begin to preponderate, and finally, on the approach to the present limits of the Atlantic ocean, are the only occupants of the fossiliferous strata. In the Maryland deposits that have been referred to the most recent of the tertiary periods, all the fossils which they contain, have their exact representatives either in the waters of some parts of the Chesapeake bay, on in those of the adjoining ocean.*

* The fossils that have been collected at one of these localities are: *Mastra lateralis*, *Venus mecenaria*, *Pholas costata*, *Solen caribeus*, *Nya mercenaria*, *Mytilus hamatus*, *Ostrea virginica*, *Fusus cinereus*, *Pyrula*, *Natica*, *duplicata*, *Nassi obsoleta*, &c. the living analogues of which were procured either from the Chesapeake bay, or from the sea coast. This deposit therefore is of a very recent period, and others of the same character have been indicated in former reports.

Some difference of opinion is entertained with those who have been studying the Atlantic tertiary formations of the United States, as to their relative ages. The great mass of fossiliferous deposits they embrace, have been referred sometimes to the epoch of the older *Pliocene* deposits, and more recently to those of the *Miocene*. An unwillingness is freely, but it is hoped considerably, expressed, to subscribe to either view, until further examinations shall have been made, and more evidence given that the greater number of fossil shells which they contain are extinct; for this purpose we should become better acquainted with the living species of our own estuaries, and of the oceanic waters that throw their offal upon our coast. It has been stated that the occurrence of the *Pecten Madisonius* and *Perna Maxillata* was to be considered as indicative of the former period, and their great prevalence in the fossiliferous deposits of Maryland, have been hitherto considered as a sufficient reason to refer them to that epoch; but we are now told that the disproportioned number of extinct species to the living ones, being as nineteen to one hundred, clearly prove them to belong to an anterior era; and so far the argument, if borne out by facts, is doubtless sound. Next, it is said that these deposits are superimposed directly upon what is considered to be an *Eocene* formation, and we are led to infer that their characteristic

These differences in the organic characters of the several deposits incontestably prove corresponding changes in the condition of the medium in which the animals that afford them have successively lived; and it is as evident that these changes have been gradual. Further alterations are taking place now, of which a remarkable instance is afforded in the present state of Sinepuxent Sound, as described on a former occasion, compared with what it was only a few years ago, when the waters of the ocean had free access into it through several inlets. It was then peopled by numerous tribes of marine animals, who found in the briny waters which it then contained a medium congenial to their existence, but have since died, leaving their testæ alone behind, in consequence of the material change that has taken place in this inland sea by the closing of its inlets to the ocean. At present it is a shallow sheet of water interspersed with broken marshes, and shoals, principally composed of oyster shells, clams, scallop and other marine productions. A slight elevatory motion imparted to the coast, or the retreat of the sea from any other cause, would leave these accumulations bare, with attendant circumstances that would fully entitle them to be looked upon as fossiliferous deposits of the *actual* period.—They would thus form an additional link in the chain that connects the geological phenomena of the secondary and tertiary periods with those that are produced under the influence of the physical causes now in operation,

Whilst these changes were taking place in the condition of that ancient ocean which formerly bathed the feet of the Atlantic primary rocks—being no more than might result from a diminution of its depth, and of its saltiness by the discharge of several larger rivers into one common estuary, such as the Chesapeake bay—the mineral masses were being deposited. They preserve throughout a great degree of uniformity, and bear all the evidences of having been precipitated from their solution, or suspension, in the oceanic waters, quietly, and during a long period of time. In the most ancient portions of the deposits, they are regular strata of sand and clay, sometimes quite or nearly pure, most frequently highly ferruginous and micaceous, containing in some places extensive beds composed of large nodules of carbonate and hydrate of iron, in others great quantities of *lignite*, associated with *pyrites* and lumps of amber.* It is

fossils are *Pectines* and *Chamæ*. Such are not precisely the characters of the Maryland deposits. The relative proportion of extinct and living species they envelope, has not been satisfactorily determined, and although at one extremity they rest upon older deposits, perhaps even secondary ones, at the other they are as immediately followed by those of the most recent kind, such as that described above. It is remarkable, too, that the *Chamæ* which are said to be so abundant in the marl beds of Virginia, should not be found here; one solitary individual of this genus having been so far discovered in one of the deposits on the Eastern Shore.

*In the first report that was made on the projected Geological Survey of the State, as time

here also, that are found the beds of micaceous black sand, and of green sand, embedding fossils, the former containing *Exogyra*, *Ostrea falcata*, and casts of *Turtella Mortonii*, *Cuculea vulgaris*, together with the teeth of some saurian animal, whilst the green sand contains, so far as it has been examined in Maryland, *Terebratulæ*. Passing to the more recent beds, there is the recurrence of the same sands and clays, only a little less ferruginous and micaceous, at first much mixed with particles of the green sand that gradually disappear altogether, leaving a heterogeneous deposit of sand, clay and mud, in which the mixed marine exuvæ of the older and more modern periods are embedded, until finally broad levels of tough clay, or undulating surfaces of almost moving sands, are left, faithfully representing the accumulations of mud in the estuaries of some of the tributaries to the Chesapeake, and the sandy beaches of a retiring sea. No where, as already remarked, are there any evidences to be found, that these mineral masses that form the true geological structure of the country, have been displaced from their original positions, or any other indications of violence, except, that they show signs on their surface of having been traversed subsequently to their de-

and opportunity were allowed only sufficient to effect a general reconnaissance of the country, all the deposits described above, in accordance with the received opinion, were referred to the tertiary period. But the discovery since, after a more careful examination, of secondary deposits in Cecil and Kent counties, on the Eastern Shore, extending down to the Chester river; and a similar one on the Western Shore, at the head of the Severn, have induced the author of this report to alter his views very materially in relation to the geological character of the whole of the arenaceous and argillaceous deposits in Maryland contiguous to the chain of primary rocks. The highly ferruginous nature of the sands and clays of which they are composed, much mixed in some places with green particles, the occurrence of distinct strata of clay covered by beds of carbonate of iron, numerous beds of ochre, and the great quantity of *lignites*, among which nodules of several varieties of amber are found, dispose to the belief, that all these deposits belong to the secondary period. It will be recollected that at the deep cut of the Delaware canal, the lignite and amber were found by Dr. Morton, associated with *Ammonites*, *Baculites* and other organic remains of the secondary epoch. None of these fossils are known to have been detected in our beds; but they have not been so deeply penetrated into, nor so carefully examined. The great deposit of Lignites and Pyrites with amber, on the Magothy river, bears on the other hand, all the evidences of being a member in the formation to which the micaceous black sand of the Severn, undoubtedly secondary, is a part. From these circumstances, it is confidently anticipated that future researches will bring to light more manifest proofs that the whole mass of sands and clays crossed in travelling between the head of the Severn and Baltimore city, is referrible to an older period than the one hitherto assigned to it; leaving out of the question the diluvial gravel by which it is occasionally covered.

position, by a current or *debacle*, that has accumulated upon them a covering of bowlders and coarse gravel, derived from the older formations in their vicinity.

In reference to this superficial deposit, which has been termed *diluvial*, it is worthy of notice that the largest bowlders and the coarsest gravel are always found nearest to the primary ridge, on the south-eastern side of which they form a considerable belt of erratic masses, diminishing in extent and in the weight of the materials that compose them, in proportion to their greater distance from it. If the cause which displaced these masses from the position they originally occupied is to be considered the same that has produced the present irregularities on the surface of the country, it can be shown that its influence did not extend farther than the lowest fossiliferous deposit described in the preceding pages. The natural section that is obtained of this deposit on the bay-side, between Plumb point and Rock point, shews that it is separated from the superior strata by an even line, though it has itself an obvious inclination to the south, with a dip in the same direction of 5°. The uppermost strata of sand and clay, some of these also containing fossils, very considerably in depth, the surface of the country being hilly; but these undulations or irregularities, though they sometimes reach to it, never penetrate into the lowest fossiliferous deposit.

On the origin of Cock-fighting.—After their victories over the Persians, the Athenians made a law, that one day in every year, there should be a public exhibition of a Cock-fight. When THEMISTOCLES led an army of his countrymen against the Barbarians, he saw two Cocks fighting. The spectacle was not lost upon him. He made his army halt, and thus addressed them:—"These Cocks (said he,) are not fighting for their country, or their paternal gods, nor do they endure this for the monuments of their ancestors, for the sake of glory in the cause of liberty, or for their offspring. The only motive is, that one is determined not to yield to the other."

These words animated the Athenians, and what was then an incentive to their valor, was preserved as a monument which might lead to the perpetration of similar exploits.

We do not know whether the information will be of any importance to modern Cock-fighters, but we have the authority of XENOPHON for asserting, that the Athenians fed their Cocks with grains of pepper to make them more irascible.

Raleigh Register.

CONTENTS OF THIS NUMBER.

Machine for sowing clover seed—Brooks' silk spinner and twister—prospects of the growing crops—sale of Wheat—wheat crop of Washington county—large ear of corn—Dutton corn—to destroy lice on cattle—the grain crop in Frederick county—culture of ruta бага—horses, their diseases, and curatives—horticultural society of Pa. liberal premium—American silk—to raise forward potatoes—Kentucky enterprise—indigo seed in S. Carolina—rock salt—propagating apple trees—radishes—roses—notice of a new motive power—large products—battle of a weasel and swallow—the tobacco trade—account of a new motive power—fortune's frolic—geological researches in Maine—Roberts' silk manual; Gov. Veazey's message—Geological survey of Maryland—origin of cock-fighting—prices current, advertisements.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	8 50	10 00
CORN, yellow,.....	bushel	94	95
White,.....	"	90	92
COTTON, Virginia,.....	pound	17	19
North Carolina,.....	"	16½	20
Upland,.....	"	20	21
Louisiana 20a21-Alabama	"	50	52
FEATHERS,.....	pound.	1 50	1 62
FLAXSEED,.....	bushel.	12 00	13 00
FLOUR & MEAL—Best wh. wh't fam.	barrel.	10 00	10 25
Do. do. baker's,.....	"	8 00	—
Do. do. Superfine, ex.	"	9 50	—
SuperHow. st. in good de'd	"	9 00	9 50
" " wagon price,.....	"	7 62	—
City Mills, super,.....	"	—	—
Do extra,.....	"	—	—
Susquehanna,.....	"	—	—
Rye,.....	"	—	—
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,.....	bushel.	6 37	7 25
Timothy (herds of the north)	"	3 00	3 50
Orchard,.....	"	—	2 75
Tall meadow Oat,.....	"	—	2 75
Herds, or red top,.....	"	—	1 25
HAY, in bulk,.....	ton.	—	20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 25	8 50
Slaughtered,.....	"	7 25	7 75
HOPS—first sort,.....	pound.	17	—
second,.....	"	13	—
refuse,.....	"	12	—
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	52	—
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	1 12	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	4 87	—
Ground,.....	barrel.	1 62	—
PALMA CHRISTA BEAN,.....	bushel.	—	—
RAGS,.....	pound.	3	4
RYE,.....	bushel.	1 05	1 10
Susquehanna,.....	"	—	—
TOBACCO, crop, common,.....	100 lbs	3 00	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,.....	"	—	10 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	16 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,.....	"	—	—
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"	—	—
Kentucky,.....	"	4 00	8 00
*WHEAT, white,.....	bushel.	—	—
Red, best,.....	"	—	—
fair to good 180a200 inferior,	"	—	—
WHISKEY, 1st pf. in bbls.....	gallon.	42	42½
" in hhds.....	"	39½	—
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	—
To Wheeling,.....	"	2 00	—
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

* German red 1 60. Stock of foreign on hand 100,000 bushels; market unsettled.

MORUS MULTICAULIS TREES.

THE SUBSCRIBER has for sale, 4,000 Morus Multicaulis trees, one and two years old, which he will sell at \$25 per hundred.

EDWARD P. ROBERTS,
Balt., Dec. 13. Editor Farmer & Gardener.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	13	—
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders,.... do.....	"	11½	12
Middlers,.... do.....	"	do	do
Assorted, country,.....	"	—	9
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	23	28
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old....	each.	5 00	7 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.	—	2 25
CHOP RYE,.....	"	—	2 37
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.	—	—
No. 2,.....	"	—	—
Herrings, salted, No. 1,.....	"	3 00	—
Mackerel, No. 1, ——— No. 2	"	10 00	—
No. 3,.....	"	—	6 75
Cod, salted,.....	cwt.	—	4 00
LARD,.....	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	VIRGINIA.
U. S. Bank,..... par	Farmers Bank of Virginia 1½
Branch at Baltimore,.... do	Bank of Virginia,..... 1a1½
Other Branches,..... do	Branch at Fredericksburg do
MARYLAND.	Petersburg,..... do
Banks in Baltimore,.... par	Norfolk,..... do
Hagerstown,.... do	Winchester,..... do
Frederick,..... do	Lynchburg,..... 1a1½
Westminster,..... do	Danville,..... 1
Farmers' Bank of Mary'd, do	Bank of the Valley, .. 1a1½
Do. payable at Easton,.... ½	Branch at Romney, .. 1a1½
Salisbury,.... 1 per ct. dis.	Do. Charlestown, 1a1½
Cumberland,..... 2	Do. Leesburg,..... 1
Millington,..... do	Wheeling Banks,.... 2½a3
DISTRICT.	Ohio Banks, generally 5a6
Washington, } Banks, ½.	New Jersey Banks gen. 2a2½
Georgetown, } Banks, ½.	New York City,..... ½a
Alexandria, } Banks, ½.	New York State,..... 3a3½
PENNSYLVANIA.	Massachusetts,..... 2½a3
Philadelphia,..... ½a	Connecticut,..... 2½a3
Chambersburg,..... 1	New Hampshire,.... 2½a3
Gettysburg,..... do	Maine,..... 2½a3
Pittsburg,..... 2½a3	Rhode Island,..... 2½
York,..... ½a	North Carolina,.... 8a10
Other Pennsylvania Bks. 1½a2	South Carolina,..... do
Delaware [under \$5].... 3a4	Georgia,..... do
Do. [over 5]..... ½a3	New Orleans,..... do
Michigan Banks,..... 10	
Canadian do..... 10	

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,
Agricultural Agent, No. 5 South Fifth street,
Feb 28—4t Philadelphia

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t.

Baltimore, Md.

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c. also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herds Grass Seed.

J. S. EASTMAN.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do. exclusive of the wheels, shafts and axle,	60
For applying the machinery to a common cart	45
For the machinery alone	40
Including the patent fee in each case.	fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz. papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

SETH WHALEN, P. M.

Feb. 1837—28

Whalen's store, New York.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & CO.

mh 7

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THE FARMER & GARDENER.

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No. 51.

BALTIMORE, MD. APRIL 18, 1837.

Vol. III

THIS publication is the *successor* of the late **AMERICAN FARMER**, and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, APRIL 18, 1837.

CUTTING CORN STALKS.

This subject has for years attracted considerable notice, and been ably discussed by various agriculturists. For ourself, we have considered it one of those questions which should be decided by facts drawn from actual experiments, and that theories, however plausible in arguments, or beautiful in illustration, could not be safely relied upon as sure guides. We have inserted in another column, a paper upon the subject from the pen of Mr. N. Wild, based upon experiments made by himself; the results, at which he arrives, are decidedly opposed to the practice of cutting stalks before the time for harvesting, shewing a loss from such practice, in one instance, of $33\frac{1}{2}$ per cent., and of $55\frac{1}{2}$ in another. These facts are worthy the attention of all corn planters, and we commend his communication to their consideration.

The prospects of the growing wheat crop, as far as we have been able to gather information upon the subject, are inauspicious in the extreme. In Pennsylvania, Maryland and Virginia, present appearances are of the most forbidding character, offering nothing like well grounded hopes that the farmer will receive any thing like a return for his expenditures in the preparation and seeding of his grounds, to say nothing about profits. This will be the third or fourth year, since an average crop has been made in the wheat growing states, and many husbandmen, we fear, are destined the present season to reap nothing but disappointment, and to find their calculations put to fault by the ravages of the weather, during the past winter, upon their wheat fields. In years past, their most dreaded enemy was the Hessian fly, but superadded to that, they have more recently seen their hopes blighted by the alternations of weather, changing from a comparatively mild temper-

ature to one of the most intense severity, in forty eight hours; thus, by sudden transitions, opening the bowels of the earth, and leaving the roots of the young grain exposed, in the first instance, to be thrown out of the soil, and in the second, to subsequent destruction from the frost. With all these evils bearing so disastrously upon the interests of wheat growers—evils which scarcely admit of the hope of speedy remedy, necessity would seem to point out the propriety of their turning their attention to some other staple, less precarious in its cultivation, more exempt from casualties, and certain of producing a remunerating crop. What that may be rests with the cultivators themselves, and must depend upon time and circumstances to develop. But in anticipation of such change, it may not be inappropriate to recommend that, with the present unpromising prospects for a wheat crop, it might be well for every agriculturist to put in more corn, oats, buckwheat, roots generally, as well as pumpkins.

Corn after it has passed the ordeal of the crows and the grub, unless, indeed, the season be one of peculiar unsuitableness, if it be well tended, will always repay handsomely for its cultivation, and although its flour be not so universal a favorite as that manufactured from wheat, it is a most acceptable substitute. Indeed, there are but few persons that could not, by its use, be made to relish it with a most savory appetite, and hence while saving crops of it are made, there is no danger of famine in this our goodly land.

Oats, as all do know, is a grain, which, with but an ordinary chance of growing, will repay the labor and expense of culture, and although it be not in this country a grain of human consumption, yet by multiplying its product the present season, it would greatly relieve the demands upon those grains which are.

Buckwheat. Wherever a failure of the wheat crop may occur, large seedings of this grain should take place, and if sown upon fields previously prepared for wheat, it would afford a very handsome profit.

Roots of all kinds should be freely cultivated; they pay well, and contribute largely towards real comfort on all establishments where they are attended to as they ought to be. Carrots and Ruta

Baga make excellent food for horses as well as cows. Potatoes, parsnips, mangel wurtzel, beets, and turnips, are equally well suited to the purposes of Stock generally.

Pumpkins, though we name it last, does not stand in that order in our regards, for we hold it that every farmer and planter should cultivate them extensively, as there is scarcely any other product more serviceable on a farm.

Oats—We have received from a friend in Milwaukee, Wisconsin territory, a small lot of the finest oats we have ever seen. They are bright, plump, and so heavy, that, when you take them in your hand, their specific gravity is so great, they feel more like shot than a vegetable production. Their weight is 44 lb. to the bushel. We shall carefully sow every grain of them, nurture each plant with every possible care, and, should they not degenerate, will take pleasure so to distribute their product, as that Milwaukee oats may hereafter become the familiar of those of our patrons who take delight in husbanding good things.

Dutton Corn—It will be seen by Mr. Bowers' communication in this day's paper, that he last year raised $112\frac{1}{2}$ bush. of this variety of corn to the acre, with little or no more labor and expense, than is usually attending the cultivation of an acre of corn, where but 40 bushels are harvested. The corn was planted in hills $2\frac{1}{2}$ feet apart and 4 stalks in the hill; it was not topped, and cut up about the 20th of September.

The Dahlia—As this is the season when this beautiful Mexican should be taken from its winter quarters and transplanted, we will remind our readers that, if they expect fine flowers, they must be liberal in manuring the places in which they deposit their roots. A moist, loamy soil, is the best adapted to their successful culture; but by filling up the hole around them with a fat compost, in which virgin mould, spent ashes and well rotted stable manure, are properly commingled, they may be raised any where, open to the sun and air. Care, however, must be taken to keep the plants well watered on every occurrence of dry weather; for stalks of such succulence, and

luxuriant growth, are necessarily deep drinkers, and must have their wants, artificially, if not naturally, supplied. And here let us remark, that those who desire to have them in their greatest perfection, should, most assuredly, give them a watering at least once a week with *soap suds*, the which, we hold to be to the vegetable kingdom, what milk is to the infant, the most wholesome aliment that can be prepared for it.

While all who are particular in having choice flowers will, of course, plant the roots, none should despair of getting good ones from the seed. Last year, out of a comparatively small quantity of seed sown, we got seven *Double Dahlias*, of transcendent beauty, presenting in themselves a collection as varied as lovely in tint and hue.

The Blight in Pear Trees—A lady who read the notice of the premium offered by the Philadelphia Horticultural Society, sent us a message by her liege lord, a few days since, which we shall relate as near as we can in her own words, as narrated to us by the respected medium of communication.

"Some years since a female friend of her's, who had had an estate sold under circumstances which were not agreeable, had a favorite pear tree, which bore fruit of exquisite excellence. Prior to giving up the place, she bored auger holes in it, with a view of killing it, having determined that those who had driven her from the home of her love, should not enjoy the luxury of her delicious pears; but much to her gratification, after her passion had cooled down, and philosophy came to her aid to soothe her injured feelings, she found that the tree outstript all others around it, in its luxuriant growth and fruitfulness."

The very means taken to destroy it, in the opinion of the lady, having imparted vigor and health to the tree, and hence she infers, that the same treatment might prove serviceable in cases of blight. We pretend not to determine either one way or the other; but would barely observe, that it is probable, that owing to some peculiar state of the atmosphere, a chemical operation might have been superinduced, and carried on through the medium of the auger holes, that conducted to invigorate the tree in question. We know, that if holes be made in a living tree, and either calomel or sulphur be inserted therein and confined by plugging, that these substances are capable of being taken up by the general circulation, and diffused throughout the tree, and is it not equally possible, if not probable, that a similar effect could be produced through atmospheric agency? With these brief remarks, we shall leave the mooted question to be decided by those whose skill in such matters better qualify them for the task.

BUCKWHEAT STRAW AGAIN—CURING HAY.

A subscriber to the *Farmer and Gardener*, who resides in Prince George's county, Md. has favored us with the following remarks, being the result of his own experience, on the value of this article as food for cattle, as also a description of his method of curing hay.

"I noticed some inquiry in the *Farmer & Gardener* in relation to the value of Buckwheat straw. I will here give you an account of a crop I raised last season, also the disposition made of the straw. On the 20th of July I sowed three pecks of buckwheat on ground I raised vegetables on, such as peas, beans, simblins, cucumbers, &c. &c. I ploughed the ground and harrowed in the wheat; on the 27th September I cut the wheat, let it remain in small cocks 14 days, half the time would have been long enough but for the very damp weather. I then hauled it to my barn and threshed it out, measuring 40 bushels.

"August 11th, I sowed several acres of buckwheat where I had raised onions, early corn, &c. Oct. 11th, apprehensive of severe frost, I cut the whole just beginning to mature, let it remain in the swarth one day, then raked it up and put it in cocks for 4 or 5 days; hauled it to my barn, stored it away as I do clover hay; some time after cut it up and fed it to my horses and cattle with chopped rye and corn, and every thing appeared very fond of it, and to improve very much in condition. The grain I have ground at a small mill (horse-power) I purchased of Thomas & Co. in Baltimore, and mix it with chop, corn, and cut hay, for my horses. I think it very superior feed.

"As I have my farm-book before me I will give you an account of the manner in which I cured my clover hay last season. July 15th, I commenced cutting my sappling clover and timothy mixed. I let it lay one day in the swarth, then put it into wind-rows for a few hours, then hauled it to my barn, where I packed it away with salt between every layer of clover. The 15th, 16th and 17th July were clear days after very damp and foggy weather and N. E. winds. I have just finished packing the clover hay I put in my barn, and I think it is as well cured and as clean as it is possible for hay to be."

The above extract from a letter is from a farmer of Prince George's, whose intelligence is only equalled by his enterprise and laudable ambition to excel in the generous and animating calling of the husbandman, and we are pleased that he has set his brethren an example, which I trust they will imitate, of favoring us with their experience.

AGRICULTURAL SOCIETIES.

We do not know when we have been more gratified than we were on Friday last, when on perusing a letter we had that day received from a friend residing at *Milwaukie, Wisconsin territory*, our eyes alighted upon the following paragraph:

"We have an agricultural society formed, and I think, in the course of the next year may be a-

ble to produce as large vegetable curiosities as any country can boast of."

The reader will probably wonder where *Milwaukie* is situated, and except that it is in the territory named, we cannot inform him; for such is the rapidity with which villages, towns, and cities, arise in the far west, that geographies are of little avail to give to them a habitation. But though we cannot point to the spot whereon this goodly place has reared its head, we must be permitted to remark, that the fact contained in the extract above, is, in our mind, conclusive proof, that it is the seat of intelligence, public spirit, and the social virtues; for all these must certainly be existent, where so early attention is paid to the true interests of agriculture: and should not this generous effort of young Wisconsin, teach the people of the states a lesson of wisdom, and point them a moral by which if they be true to themselves they will assuredly profit?

A CORN MEAL RUSK.

In our 48th number, we published a recipe for compounding the above cake, and spoke of it as a delicious accompaniment of the breakfast table. An omission of a word on the part of ourself or compositor, has brought us into hot water with a fair correspondent, who says, that she "will never forgive us unless we will consent to eat the Rusks she has baked according to our recipe; that the disproportion of *sal arætus* entirely spoiled all her ingredients." Intending to have written as one of the ingredients "2 table spoonsful of the *solution of sal arætus*," we were confident we had done so, but on looking at the article, we find we were at fault, and while we regret that our error should have led one lady fair astray, we must be excused for not doing the penance required; but if it would suit our correspondent equally as well, we would have no objection to accept of a rusk made in the proper manner, which is as follows:

6 cupsful of corn meal,
4 " of wheat flour,
2 " of molasses,
2 table spoonsful of the *solution of sal arætus*,
[equal to a tea spoonful of the powder.]

The whole to be kneaded into dough, divided into two cakes, and baked for three-fourths of an hour.

Sir Walter Scott, in one of his letters, lately brought to light, alluding to his fondness for planting and agriculture, playfully says, "I promise you my oaks will outlast my laurels, and I pique myself more on my composition for manures, than on any other compositions whatsoever, to which I was ever accessory."

The following picture of the condition of agriculture in the fertile county of *Huron*, Ohio, we copy from the Commercial Advertiser, published there. The mania of speculation seems to have been so rife in that quarter, as to have withdrawn many from the noblest pursuit of man, and its consequences are so justly depicted in the article below, that we will only remark, that the phantom of rapid acquisition has bewildered more brains than those comprehended in the subjoined notice:

THE AGRICULTURAL BUSINESS.

AMIDST the numerous avocations of man, to obtain a livelihood, we regret to say that the business of agriculture, is entirely overlooked, or at most, made a secondary consideration. *Huron* county, doubtless can boast of the very best farmers, yet there are many even in *Huron* county, who do not regard the farming business as they should. Such a conclusion must be apparent to all, who pay the least attention to that branch of business.

That we have a soil as fertile as any in the world, for the cultivation of most kinds of products, need not here be told, yet it is a fact, that a great number of our farmers in this county are themselves frequently in want. Such being the fact, we should think it would be the means to bring about a radical reform, in the agricultural business.

The question may here be asked, *why it is so?* Land is cheap, all kinds of product will sell, and at the highest prices; and yet we find many of our very best farmers engaging in other business; some engage in speculations, with the anticipation of becoming suddenly rich; others engage in commerce or manufactures, and too often find out their egregious mistake, when it is too late. All they had earned by tilling the soil, is foolishly squandered away, in consequence of their ignorance of a business, with which they had no experience.

Another great error, which we too often find instilled in the minds of a great many people; that the business of agriculture, is not as respectable as that of commerce, manufactures, or perhaps, some profession: and we find it to be the case, that rich farmers, instead of rearing their sons, to the business they themselves follow, generally transform them into merchants, lawyers, doctors, or some, (as they think) easier mode of obtaining a living. This certainly is wrong. The farmer is the main spring of society, the "bone and sinew" of our country, and should be regarded as such, by all who know how to appreciate their worth.

We hope the farmers in *Huron* county, will devote that attention to the farming business which it requires, and that more who now pursue other branches of business, will see the necessity there is in engaging more generally in so honorable an occupation.

The above remarks were hastily thrown together, but we shall, at a proper time resume this subject, with the hope of showing to the public, the necessity of attending to the cultivation of the soil.—*Huron Com. Adv.*

[From the Silk Grower and Agriculturist.] CUTTING CORN STALKS.

MR. COOKE—Many years ago I was induced by some arguments I heard among our old farmers in relation to cutting corn stalks to make an experiment on the subject. I cut the stalks from a row earlier than usual; then at the usual time for cutting stalks, I cut the row next to it, and the third row I left uncut until harvest time. At harvest time I examined the three rows by stripping down the husks as they stood in the field, and perceived but little difference. I satisfied myself without either measuring or weighing, for being then but an inexperienced boy, I was not aware of the errors that people might be led into, by leaving a part to guess work; and being trained to the practice of cutting stalks, I could scarcely endure the slovenly appearance of letting them remain on till harvest time, and therefore made up my mind that, taking into consideration the value of the stalks for fodder, we might as well cut the stalks as taught by our ancestors. Agreeably to this conclusion, I have practiced a part of the time since, and although convinced that sound philosophy was against me, yet concluded the loss in corn would probably but about balance the saving in stalks, and so contented myself to delay a more thorough investigation, and most likely should ever have remained contented so to do, had I not taken an agricultural paper, for it was in one of these vehicles of information that I read the communication of W. Clark and some others, last summer, on this point, that gave the result of experiments too convincing to pass by without notice. Therefore I was induced to try a more thorough experiment than I had before made, the result of which, although contrary to my anticipation, even after having examined it in the field as before, for here we could not believe the difference to be so great, I am constrained to submit for the consideration of your readers, with the hope that many of them will next year make a full and fair trial, and that too without guessing at part or all, and having made such a trial will communicate the result to the public, through the medium of your paper, and thus not only greatly increase the value of your publication, but establish a fact that may in ten years time be worth millions to our state alone.

The spot selected for my experiment was not at the corners or outer edge of the field, but was chosen within the field, where the soil appeared of equal quality, and the whole being managed alike, except the time of cutting the stalks. Here the stalks were cut from four rows, earlier than the usual time, say about the time the corn was in full milk. Next to these, four rows were left uncut till harvest time, and next to the last mentioned, four rows were cut at the usual time of cutting stalks; that is, when the top had become crisp, and before the main stalk and leaves had perished. At harvest time each parcel was gathered in one day and kept separate till well dried, when the weight was found to be in the following proportion: On the same quantity of ground that produced 133½ lbs. where the stalks were not cut, I had 100 lbs. where they were cut at the usual time, and 78 lbs. where they were cut earliest, the quality of the corn where the stalks were not cut being by far the best, and the

early cut the poorest. In another part of the field a trial was made with a different kind of corn, on two rows, side by side; and the result was nearly similar, but this being a later sort of corn, the frost injured it some, so that the experiment was not so fair as the other. The season last year was a peculiar one, and the result may be different in a different season, but the subject is one of the greatest importance and should be thoroughly tested. To be sure there is a little trouble attending such an experiment, but what is it? perhaps worth 50 or 100 cents—and what may the experiment be worth to community? this we cannot tell, but it may be vast. Let us estimate a little, founding our estimate on the result of the above experiment. And here let me remark, the experiment of Wm. Clark above spoken of, gave nearly a similar result.

Suppose a farmer has for 25 years past raised 100 bushels of corn per year on an average, and cut his stalks as has been usual with the greater portion of farmers; he would each year according to our position have had an addition of 33 1-3 bushels, provided he had left his stalks uncut till harvest time; this would be worth about 20 dollars. But here we must take into consideration the loss on the value of the stalks by not being cut. We will say 50 shocks of ten bundles each at 1 cent less than if cut at the usual time is 5 dollars from the 100 bushels. Now the labor of cutting and securing the stalks, more than if left uncut, say 2,50 to be deducted from \$5,00, leaves 2,50 for the net loss on the stalks if left to stand till harvest and gathered with the corn. This sum of 2,50 is to be deducted from the \$20,00, (the gain in corn) and we have for each year's crop a net gain of 17,50 in favor of not cutting, the amount of which is \$437,50 in 25 years; to this we may add each year's interest at six per cent compound, and we have, if my hasty computation be right, about *nine hundred and fifty dollars*, which the farmer might have been worth more, if he had not cut his stalks, than he now is, and that too with the consoling idea of having *saved* it and not sponged it from his neighbor, merely by a shaving bargain, by which his neighbor is made the poorer. Now if this calculation be right, as it respects one individual, what would be the amount in the same time to the whole state of New Hampshire? Tell me this, reader, if you can? N. WILD.

Chesterfield, April, 1837.

MODE OF PREPARING SPRING WHEAT.

Great care should be taken with regard to the seed from which we attempt to obtain our crops, and particularly of wheat. "One error here may mar our whole system, and render our skill productive of as much evil as good. On poor and worn out land, the evil of sowing impure seed with grain or grass seed would be great; but when the ground is in high order, the crop is more injured; the noxious plants take firmer hold, and are more difficult to be eradicated. It would be better for a farmer to pick over his seed wheat by single handfuls, than to sow cockle, darnel, tares and other vegetable nuisances.

A correspondent gives the following directions for preparing seed wheat: "The only successful course is to prepare the seed about ten days

before sowing time. This is done by selecting clean and plump seed, passing it through water in a tub about half a bushel at a time, and washing and skimming off the matter that floats; then empty it into a basket to drain; then lay it on a clean floor, and rake in two quarts of slacked lime and one quart of plaster to the bushel, and if too dry, sprinkle on water, and continue to stir it till all is covered with the lime and plaster. In this way you may proceed until you have prepared your whole seed. Let it remain in a heap one day, then spread it and move it daily, until it becomes perfectly dry; it is then fit to sow, and you may then sow it if the land should happen to be quite wet.

The same writer observes that "the quantity of wheat to an acre, should be a bushel and twenty quarts. In the process of sowing, you may not be able to apportion your seed exactly to the acre; therefore, when you have sowed and ploughed in the quantity proposed for the acre, you may gather all that remains, with the lime and plaster, and sow it on the whole piece of land, passing across the furrows. This will make it even, and cause a very equal distribution of the seed, which may then be harrowed. After the wheat has come up three or four inches above ground, sow one bushel of plaster to the acre, or house ashes, equivalent, as you please, if leached ashes, increasing the quantity."

A writer in the Maine Farmer of the 28th ult, with the signature B. S. gives the following statement on the subject:

"A gentleman, who for several years has been a successful cultivator of wheat, has pursued the following method. He ploughs the land he intends to be sown with wheat, as late in the fall as possible, with the furrows north and south; so that every part of the surface shall be equally exposed to the sun's rays. In the spring, as soon as the frost is out sufficiently to level the ground, he puts on his team with a stout harrow, and sows wheat without regard to the earliness of the season. Here let me remark, that I believe spring frosts seldom, if ever, injure grain in the least, but an early frost in the fall is very liable to, especially if it come while the grain is in the milk.

"I suppose the success of the gentleman alluded to above, to depend principally on his practice of the late ploughing and early sowing."

"The eggs or larvæ of insects are early deposited in the earth, in such cells and with such supplies of nutriment for their *infantile* state as their natures require.—The parent insect does not anticipate, and of course makes no provision for the disturbance or removal.—Late ploughing effectually dislodges a great portion of them from their winter quarters, and expose them to the sudden changes of weather—the alternate wetting and drying, freezing and thawing, which we inevitably have late in the fall and early in the spring. This exposure is more than they can endure, and the natural consequence is, that they perish in myriads."

A large hog.—A hog was slaughtered in Boscawen, New Hampshire, on the 18th of February last, belonging to Mr. David Sweat, twenty-one months old, which weighed when dressed, 654 pounds.

[From the New York Cultivator.]

DUTTON CORN.

Northampton, Jan. 18th, 1837.

JUDGE BUEL—DRAR SIR—The following is the method of culture, and result of the seed corn purchased of you last autumn, which, if you think proper, you are at liberty to give a place in the Cultivator. The variety is the twelve rowed early Dutton, or Buel corn, and is the best with which I am acquainted, particularly for latitudes north of 40°, on account of its early maturity, which is, I should say, two weeks earlier than the common or eight rowed kind. Out of several acres of the latter, planted the last season, I had not a bushel of sound corn, it being destroyed by the early frosts, while the Dutton was ripened and harvested on the 20th September, and did not give more than two per cent. of soft corn. In the preparation of, the method of culture, &c., I pursued the course frequently recommended by you; but was, through the whole process, exceedingly annoyed in contending with old prejudices and practices of laborers and others, who often rebelled, and were disposed to place themselves conservators over me, in spite of all resistance on my part. If their prophecies were to prove true, my corn would have been seven times blasted. Grave doubts were expressed as to the advantage of the roller, and in the preparation of the seed, (*see Cultivator. vol. I, p. 37.*) "whoever heard of rolling corn in hot tar? It will be scalded, ruined, and never come up." It all came up, however, and why? Because, being of the early variety, it was well ripened the preceding backward season, the reverse of which was much complained of in the common kind.—Then, again, "it was too thick—depend upon it, sir, when you come to look for ears, you will find nothing but stalks; two feet and a half! four stalks in a hill! it is entirely too much—it will cover the ground and you will get nothing." As to smooth hoeing, or without hills, it was a thing they had "strong doubts about." The cultivator, however, was allowed to be "a grand thing," and clean weeding presented no objections; here of course was a long respite, and I was allowed quietly to enjoy the pleasant anticipation of a good crop. It so happened that my corn was not hid in a corner, but grew in an open field, was subject to the inspection of many a passer by, and I was much gratified by the frequent remark,—"what a fine piece of corn!" But when the harvesting came, the objector says, "you have done wrong in cutting it up, it is better to top it," and again, "you are entirely too early, it will not harden." The fact is, however, it got thoroughly hard, and brighter or better corn I never saw; it was cut the 20th September, husked and weighed the 10th November. The piece of ground measured one acre and five and a half rods, and yielded eight thousand seven hundred and eleven and a half pounds, (which, at 75 lbs. the bushel, allowed by the agricultural society,) gave one hundred twelve and a half bushels to the acre; also, four heavy two horse loads of well cured corn stalks, worth more than a ton of the best hay.

PREPARATION OF THE GROUND, MANURE, &c.

I have a fine lot, containing six acres, lying east, and in full view from my house, slightly un-

dulating and gently sloping, on which two or three years ago, I commenced farming in miniature, on the rotation system, that I might judge of the comparative profit of good systematic culture, (by some laughed at as a book of knowledge,) compared with a slovenly and parsimonious habit, too often persevered in, and I am so far much pleased with the result; it speaks loud in favor of good husbandry. I am well satisfied, too, that you must feed your land if you would be fed yourself. This lot has for many years, (fifty or more, for aught I know,) been undisturbed by the plough, from the erroneous opinion that good grass land should remain for the scythe only. The soil is mostly a warm sandy loam; some part of it, however, is low and wet; this I have overcome by thorough draining. (On this subject I may hereafter have something to say.)

I prepared by deep ploughing last fall, a part of the above lot, carted and spread upon it the 10th of May, 38 loads of long unfermented stable dung to the acre, making five heaps to the load, dropped at five yards distance each way; this, after being carefully spread, was passed over with a heavy roller, and afterwards well harrowed, planted the 15th of May, and ashed as it made its appearance above ground.

ESTIMATE OF EXPENSES, &c.

<i>Dr.</i>	
To ploughing with two yoke of cattle, 1½ days, at \$3,	\$4 50
Rolling and harrowing 1½ days, single team, at \$2,	3 00
Seed corn,	1 00
Preparing seed corn with tar, &c.	25
Planting, two days, at \$1,	2 00
Three hoeings, two days each, at \$1,	6 00
Horse and man 1½ days, with cultivator, \$1 50,	2 25
Cutting and binding two days, at \$1,	2 00
Picking and husking 7 days, at \$1,	7 00
38 loads manure, at \$1,	\$38 00
Carting and spreading, at 25 cts.	9 50
	\$47 50
Deduct two-thirds for the succeeding crops in the rotation,	31 61
	15 89
20 bushels ashes, at 12½ cents,	2 50
Spreading 1 day, at \$1,	1 00
Interest on land, valued at \$150,	9 00
	\$56 39

<i>Cr.</i>	
By 62½ bushels corn, at \$1 50,	\$93 75
50 bushels seed do. at \$2,	100 00
2 do. soft do. at 50 cents,	1 00
4 loads stalks,	15 00
	\$209 75
Deduct expenses,	56 39

Profit, \$153 36

I have not had experience enough to know which is the most preferable, to plough old sward land in the fall, and spread the manure on the surface the following spring, or to spread the manure in the spring before ploughing, and then turn it in. I think much may depend on the season, in the first practice; if the season should be

dry, may not a good deal be dissipated by the winds? and again, if it should be wet, may not the roots reap a greater advantage, than if it lay beneath the turf? I will thank you for your views on the subject.*

Although I used my own teams, and hire my labor by the month, at 12 to \$14, yet in consequence of rainy weather, broken days, &c. I think it but right to charge the fair price of labor by the day, both for man and team. In estimates of this kind, the labor is frequently charged per day at the average of the price per month, which makes quite a different result. The estimate of corn, at \$1 50, may appear to many overrated, nevertheless, it is a fact, that corn of an inferior quality is selling with us at that price.

Yours, very respectfully,

H. G. BOWERS.

N. B. Since writing the above, it occurred to me that, although in the preparation of seed corn, tar is recommended chiefly, as a protection against birds, it may also have another very important effect, (thereby saving a replanting in consequence of wet weather,) in providing a coat, impervious to the superabundant water, until the sun shall, by its genial warmth, cause the germ to disengage itself from its confinement.

*Old sward, for corn land, is best ploughed in the fall, and if long manure is at command, it may be buried in the operation. It will undergo but slight if any fermentation before ploughing, and the soil will imbibe what it gives off of nutriment. A clover lay is best ploughed early in May, having the manure previously spread. If, in the first, manure is not at command, we would recommend that the plough be set deep, and that the manure be buried in the spring, immediately preceding planting, by a superficial furrow, which shall leave the sod as much as possible undisturbed.—*Conductor.*

[From the Gardener's Magazine.]

ON THE CULTURE OF ASPARAGUS.

BY A. FORSYTH.

There is, perhaps, no article in the culture of which, more unnecessary forms are gone through than with this. We see the plant (a native of Britain) covered with 6 inches or perhaps 1 foot of soil or litter, in winter, to keep the frost from it or to mulch it when it is in a dormant state; though we may as well mulch a layer of seed potatoes at Michaelmas, to benefit their buds for the succeeding summer.

But to come to the point, and that is, to cultivate asparagus to the highest state of perfection at the lowest charges. Let a heap of manure, equal to a layer of 9 inches deep all over the ground intended for asparagus, be prepared of the following materials:—One third good loamy turf or turf of sandy peat; and two-thirds of the best dung from the stable and cattle layers; with about two bushels of drill bones to every pole of ground. The turf ought to be pared off, and piled up, a year previous to its being wanted; and the dung properly mixed and fermented at least six weeks before. The bone manure may be spread over the rest before they are trenched into the quarter. In the process of trenching, let the manure be e-

qually incorporated with every part. In planting, let one-year-old plants be inserted 1 in. below the level of the surface, in lines alternately 9 in. and 3 ft. apart, in the same way as peas are generally planted. If the plot be extensive, paths, $3\frac{1}{2}$ feet wide, may be run across the rows, at the distance of 16 ft. apart, to prevent wheeling, and, as much as possible, walking between the lines. The plants may be from 4 in. to 6 in. apart in the row, bedded and covered with leaf-soil, or dung reduced to a soil; and, as mulching with half-rotten dung, and extensive waterings in dry weather, are the principal features of culture, it is indispensably necessary that the ground be effectually drained, summer drought and winter saturation being the grand evils to be guarded against. From the latter end of May till Michaelmas is the time that asparagus is generally left without any culture, except routine weeding, &c. Now, this is almost the only season that any culture can be of much service to the plant; for it is evident, that, if we encourage the plants whilst they are in a state of active development, that is, when they are shooting up to seed, by forking, frequent hoeing, mulching, and watering between the rows, as if flowers and seed were all we wanted, we shall invigorate the plants, and enable them to form fine plump crowns for next season: but I cannot see how banking the beds up with soil, or mulching them with strawy litter before winter (the roots being then in a state of rest,) can be of any great service to the plants. A short time before the buds appear in spring, a little fine soil may be drawn over the crowns, in order to blanch the lower halves of the buds.

In cutting, let the earth be first scraped away from the bud, that the gatherer may see where and what he is about to cut. Two or three years must elapse, after planting, before any buds can be profitably gathered for use; after which term, the lines may be allowed to remain until they become straggling and unproductive. In most gardens, however, they are generally wanted for forcing after six or seven years' bearing; in which case only a very slight hot-bed is necessary (say 80° bottom heat), with 2 in. or 3 in. of any soil under and about the roots; and 5 in. or 6 in. of old tan, or any light soil, over them: atmospheric temperature about 55°.

Roots, placed between two layers of soil in pots or boxes, may be introduced into any early forcing house at work; or trenches may be cut between the lines in the open ground, and hot dung or leaves introduced under hoops and mats. Beds for forcing asparagus, with trenches between cased with brick-work, I consider as expensive and unprofitable.

Isleworth, Dec. 14, 1836.

[From the Southern Agriculturist.]

SALT AS A MANURE FOR COTTON.

Mr. Editor,—In one of your late numbers I read, with great interest, an article from your pen, advising the use of salt as manure for cotton.—The reasons which you give for its beneficial tendency, would be conclusive to my mind, although I had known nothing from actual experience. But I have, fortunately, had some experience upon the subject, and I shall, accordingly, give it to the public.

Last year, I planted a piece of land, containing 50 acres. It had never before produced well.—I should state that 10 acres of it was new land, never planted before. The balance, 40 acres, had been planted for many years previous. I had several times manured it with compost manure. The cotton grew well on it; but except in a very prime season, I could never get the plants to retain their fruit. I had heard of the efficacy of salt-mud, and salt-marsh; but as I could procure neither of these, except with great trouble, I determined to try common salt. I did so: and my mode of doing so was as follows: I applied one bushel to each acre, spreading it in the alley, and then listing upon it. The effect upon the cotton was highly beneficial. From its shooting forth, until the time I picked it in, it exhibited a healthy and vigorous growth, and my product of cotton was greater and better than I had ever known it. It is enough for me to state, that the same land had never before produced me more than 100 lbs. of cotton to the acre. It now gave me 130.

On the new ground, the effect was manifest. I had never planted new ground before, for the first year, without the cotton all running to stalk.—It now grew well, and produced me, at the least calculation, 150 pounds of clean cotton to the acre.

If these statements are of any service to you, you are welcome to make them public.

ST. LUKE'S PARISH.

February 23, 1837.

[From the Southern Agriculturist.]

RUTA BAGA.

Darien, Ga. February, 1837.

Mr. Editor,—I am sorry to see, that this valuable vegetable is not more extensively cultivated by our planters. Several of your correspondents, for the past year, have alluded to its value, until I tried its cultivation myself. I had long proposed to do so, but was always dissuaded by those who pretended to know more about the plant than they actually did.

On my plantation I work none but horses and mules. My friends state, that, however well the ruta-baga might do in a northern climate, to feed horses and mules, it would not answer for working animals here. They contended, that, the food in our climate, was too watery, and not sufficiently succulent.

But, sir, I have found that, one fact is better than a thousand theories. I have, the last year, planted ruta-baga, and have fed my carriage and working horses with them; and I assure you, I have never had my horses in better condition.

To branch a little from my main object, I would here state, that, the principal reason why horses are "hide bound," is, because their usual food is of too heating a nature. Let any one examine the excrement of horses, after eating corn, it will be found that only one half of it has undergone digestion. The other half goes as nothing.

Now, sir, let the horse be fed on a portion of ruta-baga, carrots, or potatoes, and I give my own experience as evidence to the fact, that all the horse's food will undergo complete digestion. But, it may be urged, that, feeding the horse in this way

makes him "windy." I grant that it will; but a handful of salt, applied to each feeding, will entirely obviate this objection. Consider the value of ruta-baga, compared with corn. The acre of land, which will produce 20 bushels of corn, will, planted in ruta-baga, produce, at the lowest calculation, 300 bushels. One acre, last year, with 60 bushels of cotton-seed put upon it, produced 597 bushels of ruta-baga. Two summers ago, while in New-York State, I visited a farm upon which the proprietor assured me he raised 1,500 bushels of ruta-baga to the acre. I have known of 1,200 bushels being raised in our own State, upon land newly cleared.

These large crops are, however, not to be calculated upon, in making up our calculation of this food. Let us take it for granted, that, with ordinary attention, 300 bushels may be raised. Suppose the same land to produce 20 bushels of corn. Any one who will try it, will find, that five bushels of ruta-baga, cut up, will go just as far as one bushel of corn. If, then, five bushels are equal to one, 300 bushels of ruta-baga are equal to 60 bushels of corn, which will make one acre in ruta-baga yield 3 times as much as one acre of corn. In the experiment I tried, it yielded me fully six times as much.

But the blades of the corn should be calculated. I am clearly of opinion, that the tops of the ruta-baga, when fed out to cattle, fully compensate for the loss of the blades: for you may cut the tops three or four times, without injury to the roots. I have never steamed the ruta-baga, but, I am confident, that such a process would add double value to the food.

Mr. Couper, of St. Simons, in the April number of your journal, for last year, recommends the planting of a few acres of ruta-baga, instead of peas, in corn land. This year I shall try the experiment; for it seems to me, to be founded upon such strong reasoning to support its advantages, that it cannot fail of success.

Permit me, to request of those who read this journal, to give a small piece of ground during this year, to the cultivation of the ruta-baga. At the conclusion, let them state to the public, whether they have not been practically convinced of the following facts.

- 1st. That ruta-baga will support horses well, as food—as well as corn.
- 2d. That one acre of this root will go farther than one of corn.
- 3d. That one acre of ruta-baga can be attended with half the labor and expense of one acre of corn.

DARIEN.

CULTURE OF CARROTS.

[From the Silk Grower and Agriculturist.]

Mr. Cooke—In your paper of Feb. 27th I noticed an article from the Bangor Farmer, stating that "Deacon Andrew Webster of that city, grew the last year, on a flat in his garden, a crop of carrots at the rate of 1920 bushels to the acre." A few years since I raised on a piece of land containing 8 square rods, being one-twentieth of an acre, 40 bushels of carrots, equal to 800 bushels per acre, not quite half so large a crop as the good Deacon's, though I considered mine a fair yield. But my carrots were not raised in a garden, but on a gentle declivity of sandy loam in a mowing

field—so poor and so much worn by previous tillage and cropping, that it had been useless for a number of years, and was not covered with a sward. The method of culture was as follows:

About the last of April, the season being forward, I trench-ploughed the land, that is ploughed two furrows deep; then spread on the piece 5 cart loads of manure; ploughed in the manure with a single furrow; harrowed the land smooth, and sowed the seed broad cast, and covered it by using a common hay rake. The weeding was performed twice; at the first weeding the carrots were considerably thinned. The manure used was taken from a hog-yard, being a mixture of bog-dung and swamp-mud; the largest proportion, say two-thirds, mud, which was carted into the yard the fall previous. The carrots cost me about 12½ cents per bushel, reckoning nothing, of course, for the use of the land. About half of the carrots were used in fattening a cow, the other half were given to a flock of twenty sheep, during the winter and spring, which effected a considerable saving of hay; improved the quality of the wool, and added ½ lb. to weight of each fleece, over that sheared from the same sheep the previous year, being well kept on hay; the lambs were also raised with little trouble. The spring following, I sowed the land with oats and stocked with herds grass. The oats grew at the rate of 50 bushels to the acre. The land has been mowed four years and produced at the rate of 2½ tons of hay per acre.

I have thus been particular in stating the details of my small but successful experiment for two reasons; first, to exercise the mathematical ingenuity of the reader in estimating the amount of my nett profit in the aggregate; and second, to call the attention of farmers to the raising of root crops, as this is the proper season of the year to make our calculations for rural economy and agricultural management.

I have been equally successful in raising the scarcity root. I have never attempted their field culture, but raised them on small patches of land made rich by receiving the wash of the barn-yard, dung-hill, or buildings. I once raised an excellent crop on a piece of land from which an old house had been removed.

JAMES HALE.

Alstead, March, 1827.

MAKING CHEESE,

As practised in one of the most eminent dairies in New England.

Add the night's milk with the morning's, and heat it gently over a fire until well warmed, then put it in a tub or vat with sufficient prepared annatto to give it a handsome yellow cover. Put rennet sufficient to make it curd in 25 minutes; when curdled take a wooden knife or sword and chequer it all into squares to the bottom; let it stand from 15 to 20 minutes, or until the whey appears above the curd; next put a clean strainer on top of the curd so as the whey may arise on top, and lade it off with a dish or dipper; then put a cheese strainer in a cheese basket over a tub, and carefully remove the curd and remaining whey into it, and cut it into slices with a thin skimmer until the whey has mostly drained out; then bring the corners of the strainer together and twist them, so as to bring the curd in a solid mass, and put the twisted corners down in the

basket, and a clean board about 1 foot square on the top of it, on which put about 20 weight, in order to press out the whey. After remaining about 15 minutes, the curd is to be cut in pieces about 1 inch square, and put back again with the weight on, and remain from 10 to 15 minutes, and then cut as last stated, and put back again, and so repeated from 6 to 10 times, or until the whey has entirely done dripping from it; after which take it out and cut in pieces of about two inches square, put in a wooden bowl, and chop with a chopping knife until the pieces are the size of Indian corn. The next is scalding the curd, which is done by putting it in the strainer and putting in the kettle of whey heated to blood warmth, for if the whey is too hot it will ruin the cheese, and make it dry and hard; while in the whey it must be stirred with the hand until the whole is equally heated; then it is taken out and put in a cheese basket over a tub and clean fine salt thoroughly mixed, to give it a high salt flavor, and let it stand until hardly blood-warm, then the corners of the strainer and twisted together as before, and put in the hoop and pressed, in this instance, with a weight of 100 lbs. to every 10 of cheese, to remain about half an hour, taken out and turned and replaced in the press and add about one third to the weight; then let it remain 3 hours. Then take it out and put it in a fine clean linen cloth, perfectly smooth, and no wrinkles in it; put again in the press and press 48 hours, being taken out and turned once during the time. At this pressing about one-third additional weight must be added. It must then be taken out, oiled, and put on the shelf, where it must be turned, rubbed and oiled at least every 24 hours. From long experience, I have found it the best method of making cheese.

Tennessee Farmer.

[From the Saturday Evening Courier.]

We have been politely presented with a specimen of beet sugar manufactured by J. S. LOVERING, Esq. of this city—one of the most extensive sugar refiners in our country. We shall be happy to show it to all who may feel curiosity to witness this product of a new manufacture—and especially to our agricultural friends.

We also insert the letter of Mr. Lovering addressed to Mr. Pedder in relation to this experiment—which very satisfactorily corroborates the results stated in the report to the "Beet Sugar Society" of this city.

PHILADELPHIA, March 9th, 1837.

Dear Sir:—Owing to bad health and engagements that necessarily occupied all the time I was able to devote to business at the proper season for making Beet Sugar, it was out of my power to make any experiments whatever; I regret this the more, as the beet roots I had provided for the purpose, although I thought I had secured them from the frost, were unfortunately frozen to the core, and, therefore, from the French statements rendered entirely useless, I however, determined to make the attempt and now send you herewith a sample of the product.

This Sugar was, therefore, made under the most unfavorable circumstances possible, it will, however, prove to you the practicability of the process in this country. All the results of this very imperfect experiment, such as the juice, cake, and

saccharine matter, agree very nearly with those stated by Mr. Pedder in his report to the Society, and there is every reason to believe, that under more favorable circumstances the yield would be much greater.

In this experiment (it being too small for my steam apparatus) I made use of none of the improved methods of sugar making, I provided myself with the French rasp, and a good press, all the rest was done in a common brass kettle over a charcoal fire made in a common furnace. The rasp is truly an admirable machine for the purpose, and for the crushing of apples for cider making, I think nothing yet invented can at all compare with it: in three and a half minutes I ground and placed under the press 100 pounds of beet roots. The sugar is much better than any crude sugar I have seen from France, and there is no doubt but it would have been much handsomer had the roots been perfect and the operation performed at the proper season.

I am very truly yours, &c.

JOSEPH S. LOVERING.

To JACOB SNIDER, Jr. Esq.

Secretary Beet Sugar Society.

Swamp Mud.—Were farmers to pay more attention to draining their low lands, they would find it much to their interest. Separate from the advantage of rendering their low lands dry and productive, much manure of the first quality might be taken from the ditches, and when spread upon fallows and other uplands under tillage, would well reply all the expense of ditching. Many seem to entertain the idea, that nothing is worth carting or spreading as manure, unless it has been collected in the barn-yard, or is the excrement of animals.

All vegetable matter undergoing decomposition furnishes food for growing plants, and may be applied as manures. In short, any thing, whether vegetable or animal substance, which on being mixed with a soil under cultivation, and which increases the growth of plants cultivated in such soil, is termed manure. Different soils require different substances to be applied, in order to facilitate the growth of plants; thus, light sandy soils, which are too loose to retain moisture, are greatly benefitted by the application of clay; and such earths as are comparatively too retentive of moisture, are greatly altered for the better, by mixing with them a portion of sand, so that whatever be the soil which requires ditching, the earth removed may be carted to a different soil, and be applied as a manure. There is on some farms small swamps or depressions, in which vegetable matter collects, and which cannot without considerable expense be drained; these frequently become dry during summer, when large quantities of manure might be taken out of them. Good farmers will look carefully to these things; but some that are new in the profession, may not be aware of the importance of such deposits, and a hint from us may not be considered amiss.

A fine Cow.—Mr. Isaac Edwards of Penn township, informs us that one of his cows has yielded him from the 1st of April to the 21st Oct. the aggregate sum of \$34 50. During the same period of time, she has averaged one pound of butter each day.—*U. S. Gaz.*

EDW. P. ROBERTS & SANDS & NEILSON

Having purchased the Establishment of the
FARMER & GARDENER,
(Successor to the *American Farmer*.)

And being desirous to place it within the reach of every agriculturist in the United States, have concluded to *reduce its subscription price from five dollars, to two dollars and a half*, per year, from and after the beginning of the next volume, which will commence in May next.

It is now nearly eighteen years since the *American Farmer* was first established. Prior to its institution, there were no paper exclusively devoted to agriculture in the country, and it will not be arrogating any thing but what it deserves, to say, that, as it was the pioneer in the good work, the labors of its former conductors must have been productive of much solid advantage to those for whose benefit it was established. In continuing its publication, the present proprietors flatter themselves that its pages will be found to contain matter at once calculated to instruct and interest the agricultural reader. So far as they are concerned, they are determined to conduct it with industry, unflinching perseverance, and with undivided attention to the great and important purposes which called it into existence. They feel certain that none of its patrons will have cause to complain at the end of their subscription year, that they have left any effort unessayed to render it worthy of their confidence and support.

In reducing its subscription price, they have ventured upon an experiment full of risk and responsibility, and as they have done so under the influence of motives which they must be permitted to say should commend it to a greatly increased subscription—as they can alone look to that as the source of their remuneration—and as in so doing, their labor will be much increased—they appeal to its present patrons to aid them in giving it an extended circulation. They are confident that those who now honor them with their support, can, without personal inconvenience, in their own immediate neighborhoods, and among their personal friends, by using their deserved influence, procure such an addition to their present list of subscribers, as will not only realize their fondest expectations, but place them under renewed obligations of interest and gratitude, to render the *Farmer and Gardener*, a welcome visitor to the fireside of every farmer and planter.

The *Farmer and Gardener* will at once be a faithful repository of original communications from practical agriculturists and horticulturists, and of judicious selections from every other available source. Foreign and domestic agricultural, and scientific works, will be constantly resorted to, for the purpose of furnishing materials calculated to advance the prosperity and happiness of the country, and of adding to the intelligence of the American husbandman.

In fine, whatever concerns the business of the farm, domestic animals of all kinds, newly invented instruments of husbandry, those of approved utility now in use, together with the principles and practice of agriculture, horticulture, and gardening generally, will be regularly and conscientiously noticed. The prices of produce in this market, and the value of bank notes will be weekly laid before its readers.

With a view of keeping their patrons advised of all superior breeds of animals already introduced, or which may be hereafter imported, they will seize the earliest opportunity of translating all such information to the columns of their journal.

TERMS, &c.

Price two dollars and fifty cents per annum for all subscriptions paid in advance, or within one month from the date of subscription—all subscriptions which remain unpaid beyond that period, will be charged at the rate of three dollars per year.

The *Farmer and Gardener* is published every Tuesday, is printed on fine paper, with a beautiful bold type.

Baltimore, April, 1837.

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each,

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER and GARDENER, North-east corner of Baltimore and Charles streets, Baltimore, Md.

April 18, 1837.

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is of good dimensions and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to
EDWARD P. ROBERTS,
Ap. 18. 4t. Baltimore, Md.

A FARM FOR SALE.

THE subscriber has for sale a farm situate in Prince George's County, Md. It contains 150 acres of good land, one-third of which is very heavily timbered. A large proportion of the cleared land is in meadow, well set in Timothy, the balance is all in clover, with the exception of 10 acres seeded in oats, clover and timothy. The enclosures are good. The improvements, a small dwelling, an excellent new barn. The soil is adapted to the growth of all kinds of grass and grain, and is as susceptible of permanent improvement as any land in the country. It is remarkably healthy and handsomely situated. Should the person desirous of purchasing, wish more land, the owner would have no objection to increase the quantity of wood or cleared land. The Baltimore and Washington rail road passes through the farm, it being situate within half a mile of the depot at Beltsville; thus offering great facilities of transportation, and the choice of two markets, advantages not often enjoyed. A CREDIT of 1 and 2 years will be given on two-thirds the amount of purchase money; CASH will be required for the other third; but should an eligible purchaser be obtained, the terms would be made to suit his convenience, as one great object of the owner, who has an estate adjoining, is to secure an enterprising agricultural neighbor.

Applications post paid to be addressed to
EDWARD P. ROBERTS,
Baltimore, Md.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,
87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,.....	bushel.	1 50	1 75
CATTLE, on the hoof,.....	100lbs	8 50	10 00
CORN, yellow.....	bushel	94	95
White,.....	"	90	92
COTTON, Virginia,.....	pound	17	19
North Carolina,.....	"		
Upland,.....	"	16½	20
Louisiana 20a21-Alabama	"	20	21
FEATHERS,.....	pound.	50	52
FLAXSEED,.....	bushel.	1 50	1 62
FLOUR&MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's.....	"		
Do. do. Superfine, ex.	"	8 75	9 00
SuperHow. st. in good de'd	"	9 00	
" wagon price,.....	"	8 25	8 50
City Mills, super.....	"	8 00	8 25
Do extra.....	"	8 75	9 00
Susquehanna,.....	"	9 00	9 50
Rye,.....	"	7 62	
Kiln-dried Meal, in hhds.	hhd.		
do. in bbls.	bbl.		
GRASS SEEDS, red Clover,.....	bushel.	6 37	7 25
Timothy(herds of the north)	"	3 00	3 50
Orchard,.....	"		2 75
Tall meadow Oat,.....	"		2 75
Herds, or red top,.....	"		1 25
HAY, in bulk,.....	ton.		20 00
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
HOGS, on the hoof,.....	100lb.	8 25	8 50
Slaughtered,.....	"	7 25	7 75
HORS—first sort,.....	pound.	17	
second,.....	"	13	
refuse,.....	"	12	
LIME,.....	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,.....	"	52	
PEAS, red eye,.....	bushel.		
Black eye,.....	"	1 12	
Lady,.....	"		
PLASTER PARIS, in the stone,.....	ton.	4 87	
Ground,.....	barrel.	1 62	
PALMA CHRISTA BEAN,.....	bushel.		
RAGS,.....	pound.	3	4
RYE,.....	bushel.	90	
Susquehanna,.....	"		
TOBACCO, crop, common,.....	100 lbs	3 00	3 50
" brown and red,.....	"	4 00	6 00
" fine red,.....	"	8 00	10 00
" wrappery, suitable	"		
for segars,.....	"		10 00
" yellow and red,.....	"	8 00	10 00
" good yellow,.....	"	8 00	16 00
" fine yellow,.....	"	12 00	16 00
Seconds, as in quality, ..	"		
" ground leaf,.....	"		
Virginia,.....	"	4 50	9 00
Rappahannock,.....	"		
Kentucky,.....	"	4 00	8 00
*WHEAT, white,.....	bushel.		
Red, best,.....	"		
fair to good 180a200 inferior,	"		
WHISKEY, 1st pf. in bbls.....	gallon.	42	42½
" in hhds.....	"	39½	
" wagon price,.....	"	36	37
WAGON FREIGHTS, to Pittsburgh,	100 lbs	1 75	
To Wheeling,.....	"	2 00	
WOOL, Prime & Saxon Fleeces,...	pound.	50 to 60	30 32
Full Merino,.....	"	45 50	26 30
Three fourths Merino,.....	"	40 45	24 26
One half do.....	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,.....	"	36 38	24 26

* German red 1 60. Stock of foreign on hand 100,000 bushels; market unsettled.

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, Jr. & CO.

mh 7

Light, near Pratt street wharf.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,.....	barrel.	13	
BACON, hams, new, Balt. cured...	pound.	17	18
Shoulders, ... do.....	"	11½	12
Middlings, ... do.....	"	do	do
Assorted, country,.....	"		9
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,.....	"	23	28
CIDER,.....	barrel.		
CALVES, three to six weeks old...	each.	5 00	7 00
COWS, new milch,.....	"	35 00	50 00
Dry,.....	"	10 00	13 00
CORN MEAL, for family use,.....	100lbs.		2 25
CHOP RYE,.....	"		2 37
EGGS,.....	dozen.	18	25
FISH, Shad, No. 1, Susquehanna,	barrel.		
No. 2,.....	"		
Herrings, salted, No. 1,.....	"	3 00	
Mackerel, No. 1, ————No. 2	"	10 00	
No. 3,.....	"		6 75
Cod, salted,.....	cwt.		4 00
LARD,.....	pound.	11½	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

		VIRGINIA.
U. S. Bank,.....	par	
Branch at Baltimore,.....	do	Farmers Bank of Virgin. 2a2½
Other Branches,.....	do	Bank of Virginia,..... do
MARYLAND.		
Banks in Baltimore,.....	par	Branch at Fredericksburg do
Hagerstown,.....	2a	Petersburg,..... do
Frederick,.....	do	Norfolk,..... do
Westminster,.....	do	Winchester,..... 1½a2
Farmers' Bank of Mary'd, do		Lynchburg,..... 2a2½
Do. payable at Easton, ... 2		Danville,..... 1a1½
Salisbury,.... 1 per ct. dis.		Bank of the Valley, ... 1a1½
Cumberland,..... 2		Branch at Romney, ... 2a2½
Millington,..... do		Do. Charlestown, 1a1½
DISTRICT.		Do. Leesburg,..... 1
Washington, } Banks, 2.		Wheeling Banks, ... 3a3½
Georgetown, } Banks, 2.		Ohio Banks, generally 5a6
Alexandria, } Banks, 2.		New Jersey Banks gen. 2a2½
PENNSYLVANIA.		New York City,..... 2a
Philadelphia,..... 1a		New York State, ... 3a3½
Chambersburg,..... 1		Massachusetts, ... 2½a3
Gettysburg,..... do		Connecticut, ... 2½a3
Pittsburg,..... 3a3½		New Hampshire, ... 2½a3
York,..... 2		Maine,..... 2½a3
Other Pennsylvania Bks. 1½a2		Rhode Island, ... 2½
Delaware [under \$5].... 3a4		North Carolina, ... 8a10
Do. [over 5]..... 2½a3		South Carolina, ... do
Michigan Banks,..... 10		Georgia, ... do
Canadian do..... 10		New Orleans,..... do

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,
Agricultural Agent, No. 5 South Fifth street,
Feb 28—4t Philadelphia.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t.

Baltimore, Md.

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herds Grass Seed.

J. S. EASTMAN.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete, \$100
Do. exclusive of the wheels, shafts and axle, 60
For applying the machinery to a common cart 45
For the machinery alone 40
Including the patent fee in each case. fe 28 3t

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

SETH WHALEN, P. M.

Feb. 1837—28

Whalen's store, New York.

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THE FARMER & GARDENER.

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 52.

BALTIMORE, MD. APRIL 25, 1837.

Vol. III

THIS publication is the successor of the late
AMERICAN FARMER,

and is published at the office, at the N. E. corner of Market and Charles streets, at FIVE DOLLARS per annum, payable in advance. All subscribers who pay in advance, will be entitled to 50 cents worth of any kinds of seeds, which will be delivered, or sent, to their order.

American Farmer Establishment.

BALTIMORE: TUESDAY, APRIL 25, 1837.

We publish below the Card of Mr. James Ronaldson, of Philadelphia, to the Farmers of the United States, announcing the unpleasant tidings that the vessel in which the seed that he had ordered from Europe for their benefit had been wrecked at sea, and the seed consequently lost. It will be recollected by our readers, that in the communication which appeared in our paper last autumn from this estimable gentleman, that he gave notice of his intention of importing certain grain and grass seeds, with a view of enabling the agriculturists of our country, at the bare expense of cost and charges, of supplying themselves with such of the assortment ordered by him, as they might wish, being stimulated to make this effort by the sole desire of benefitting the great cause of the husbandry of his adopted country, believing that a change in seed would be greatly promotive of the successful culture of our lands. Though he has been foiled in this noble and generous effort to confer a benefit upon the country, by the disasters of wind and weather, he is not the less entitled to the thanks of those whose prosperity it was his object to promote. For ourself, we feel the obligation of the debt of gratitude as sensibly, as though it had been intended exclusively to advance our individual interest; for it is amongst our most cherished principles, that acts of public utility, emanating from the philanthropic impulses of generous hearts, are infinitely more worthy of appreciation than those benefactions which look not beyond the aggrandizement of a personal friend.

Mr. Ronaldson says, that "this disaster has defeated the project;" but when we trace in our mind's eye the vastness of his moral stature, we think we can promise for him, that the "defeat" is but present in its effects, and that phoenix like,

another project will arise as ample in its conception, as it will be fruitful of good in its fulfilment.

A CARD.

To the Farmers of the United States.

In October, 1836, I stated to those who felt an interest in trying the effects of a change of seed on our grain crops, that some varieties of oats, barley, wheat, rye and grass, such as promised to suit our soil and climate, had been ordered from Britain.

The gentleman to whom the commission was confided, made the selections with great judgment, and put the seed on board a newly repaired brig, the Cartha, Capt. Morrisson, to sail from Greenock, Dec. 20.

The vessel not arriving in due time, it became proper that those who had sent me orders for seed should be advised of this circumstance; and as there was a probability that some disaster had befallen the vessel, they might apply the land intended for the imported seed to some other purpose. Since writing the Circular of March 17, communicating the above information, it has been announced in the newspapers that the brig Cartha has been abandoned at sea, crew and passengers saved. (Ship news, Pennsylvania Inquirer, March 29, 1837.)

This disaster has defeated the project; and this communication is made that those who felt an interest in the experiment should be made acquainted with the cause of its failure.

JAMES RONALDSON.

Philadelphia, April 4, 1837.

What a country of varied climate is this of ours! On the 11th of the present month, a friend writing us from Albany, New York, informs us, that the Hilderburg mountain, distant about 10 miles from that place, was then covered with snow, and that winter had lingered so long in the lap of spring, that he had not been able to plough his fields or repair his fences. On the 14th instant, we find by the *Advertiser*, published in Wilmington, North Carolina, that the good people of that city had been enjoying the luxury of lettuce, radishes and asparagus, for some time, and hoped by the expiration of another week to add green peas to the list of good things. By the *Savannah*, Geo. papers, we find, that on the very day when our friend in the vicinity of Albany, was looking upon his snow-clad mountains, unable to break the earth, the citizens of the former city were luxuriating on green peas.

THE PROSPECTS OF THE GROWING CROPS.

Notwithstanding we may subject ourself to the imputation of being "a croaker," standing in the relation we do to the agricultural community, we cannot refrain from discharging what appears to us an imperative duty. Believing as we do that the growing crop of wheat will be a short one, we think it but justice to say so; for the truth, however unsavory it may be to those whose interests may be affected by it, should be told. We have taken much pains to inform ourself upon the subject, both by correspondence and personal conversations with farmers, and from the best information we can gain, we do not believe that in the aggregate, in most of the wheat growing states, half of an average crop will be realized. In proof of this, we will instance a fact related to us by a gentleman residing in the valley of Virginia—in that beautiful region of fertile limestone lands, which was, until within the last two or three years, so remarkable for its prolific yield of wheat—he informed us that he had seeded 160 bushels of wheat, and did not believe he would get more than his seed back again—nor is his a solitary case; for with few exceptions in every quarter where our inquiries have been pushed, a similar disastrous condition of things exist. If this be the case, and we believe it is, we should like to know what possible good can result from concealing it. Is it not better, by timely notice of the fact, to direct the attention of farmers and planters to the necessity of putting in other crops, so as measurably to make up for the deficiency and mortification they are destined to experience from their wheat crops?

Although disappointment inevitably awaits them in the product of this heretofore important staple, there is yet time, if properly used, to do much in the way of repairing losses from this source. By putting in an extra quantity of corn, or paying additional attention to the usual crop—by seeding more oats, barley, and buckwheat, a great deal may be done. So also, should more roots of every description be planted—no matter what kind they may be, if judiciously managed, they will prove lucrative as a branch of husbandry: and while we are speaking on this latter de-

partment, we must be permitted to express our regret, that so little attention has been paid to it by farmers generally. Any ground that will grow a good crop of corn, will yield with equal labor a profitable crop of roots, as *parsnips, carrots, beets, mangel wurtzel, ruta бага, turnips, and potatoes*. We will venture the assertion, that any soil that will yield 50 bushels of corn, will, with the same quantity of manure and amount of labor, produce from 300 to 700 bushels of most of the above enumerated roots; such being the fact, it has always appeared to us strange, that agriculturists manifested so much indifference to their culture, when their interests were so closely connected with the pursuit of an opposite course of policy. We have known many farmers, with from 6 to 20 milch cows, who, during the greater part of the winter, scarcely got milk and butter enough for their own tables. Why is this so?—The question is easy of solution. Without proper succulent food, no cow, and we care not how good she may be, can secrete any considerable portion of milk. In spring and summer, when they are permitted to range in luxuriant pastures, we find cows generously returning the kindness extended towards them—here the reason is obvious—they get plenty of that peculiar nutriment, which is convertible into milk,—and this very fact should teach us all, that when deprived of those pastures by the recurrence of winter, we should provide them with a good substitute, and surely there can be none better than wholesome roots.

With these brief remarks, we will proceed to copy a few of the paragraphs which reach us through our correspondents, and exchange papers, upon the subject of the growing wheat crops:

The Wheat Crop.—The Maysville (Ky.) Eagle of the 15th inst. says:

"The Wheat crop, in this region of Kentucky, so far as we have been enabled to ascertain from the reports of the most respectable farmers, presents a more unpromising appearance than for many years past."

Most of the papers received at the Centreville Times office concur in the opinion, that all wheat of fall sowing has been very much injured during the past winter, and that enough can scarcely be in the ground to ensure a fair crop. Great complaint is heard of the unpromising aspect of the Rye, it being so far as perceived, greatly injured by the winter frosts. Quere—Did the seed sown last fall, of wheat and rye, vegetate? We think the most of it did not.—*Centreville Times*.

The SPRING WHEAT sown by the editor of the Centreville Times, looks so far, remarkably fair; fairer by great odds than the fall sowing.—*Ibid*.

The editor of the Chestertown Bugle, says:—From every quarter we receive the most discouraging accounts of the wheat and rye crops. Ma-

ny of our farmers sowed but little, and indeed some of them sowed none of the former grain last fall, reserving their land for a spring crop of oats.

Within the last two weeks we have heard of several persons whose wheat had been so completely destroyed by the severity of the winter as to offer no prospect of a crop, and they are also ploughing up their wheat fields to seed oats. The season at present is highly favorable for planting corn, and we are gratified to learn that notwithstanding the extreme backwardness of the spring, our farmers generally are prepared to avail themselves of it.

The growing crop.—The accounts relative to the wheat crops in Virginia continue unfavorable. The Alexandria Gazette says:—We yesterday conversed with an intelligent farmer from one of the best sections of Virginia, for growing wheat, who informed us that one of his neighbors had ploughed up fifty acres of wheat, and would do the same with forty more, with a view to seeding oats and planting corn; he further remarks that that course will be adopted generally in his neighborhood. Making all allowances, there can be no doubt, that the wheat crop in Virginia has a bad prospect.

Per Contra, however, after the above was written, a gentleman from Loudoun informed us that the prospect for wheat, in his neighborhood, was not so bad as represented.

The Hagerstown Courier, on this subject, says:—We are sorry to hear our farmers complaining about their prospects of a wheat crop, the grain at this time does not look very promising, but we hope that the season may be such as to afford them an abundant harvest.

We learn that in that part of Anne Arundel bordering on West River and its vicinity, the accounts are equally unfavorable, many of the wheat fields having been ploughed up.—*Balt. Amer.*

The crops in Pennsylvania.—We have been making inquiries of several farmers, all of whom concur in the belief that should the weather continue favorable the crop of wheat, &c., will be a fair one. Some fields in this neighborhood look well, while in others the grain is scarcely above ground; this, however, is probably owing to the late sowing.—A few warm days may effect a great change.—*Hanover Herald*.

The Fredericktown (Md.) Herald, says:—"We regret to see from various quarters of the country, statements of the prospect of a failure of the wheat crops again during the present season, and in our own neighborhood we are sorry to find that a general opinion prevails that the grain has been very much destroyed by the severity of the winter, and on account of the badness of the seed.—Many persons we understand are ploughing up their wheat fields and putting them down in oats and corn. A marked difference however, it is said, exists between the western seed, or the old wheat seed, and the seed of the last crop, as the latter is by far the most indifferent."

The Poughkeepsie Telegraph, published in Dutchess County, New York, affords us the following gratifying intelligence from that fertile region of the Empire State, and would that we could receive similar paragraphs from the other wheat growing portions of our country.

WINTER GRAIN—Owing to the cold dry weather of November, winter grain in this section of the country was considerably injured by not taking as deep root as necessary for promising growth, and by the roots being exposed to the frost on the surface by the removal of the earth by wind. At the opening of spring, farmers predicted very light crops from the foregoing causes, but we are now informed that should the spring henceforth prove favorable to the growth of wheat and rye, there is every prospect of an abundant crop in this county.

THE CROPS—We have seen accounts from different parts of the state, respecting the growing crops, which with one exception, are by no means flattering. In this county but little wheat was seeded last fall, and many seeded none at all, rye being much more productive in our light and sandy soil. Last year our farmers did not get any thing like a return of seed, and the high price of wheat deterred many from buying, so that there was, probably, not one-fourth of the usual quantity seeded. It cannot, therefore, be expected that there will be any thing like an average crop the ensuing season, even should it be favorable. In the mountainous region of Virginia, the farmers anticipate an almost entire failure of the wheat crop, and are preparing their fields for oats and corn. Some of them have wisely procured the Spring Wheat, so successfully cultivated at the North, which will doubtless yield them a good crop. The Cumberland Civilian states that the prospect, in that region, of an average crop is somewhat promising.—Though not far advanced for the season, the wheat, in general, is said to have such an appearance as to promise a tolerably good yield.—*Advocate, Denton, Eastern Shore, Md.*

GRAIN—We understand that some of the farmers of Pikeland consider the prospect for wheat and rye, so gloomy that they have ploughed their fields for oats and corn.—*Westchester Record*.

Extract of a letter from a highly esteemed correspondent in Pennsylvania, to the editor of the Farmer and Gardener, dated

BETHLEHEM, April 18, 1837.

"Dear Sir,—I wish I could give you a more encouraging account of our prospects for an abundant harvest. There is still a chance for the better—at present there is no denying that most of the rye fields have not stood well the winter, and the long continued alternate freezing and thawing, besides, we suffer just now under a continued spell of wind, which is blowing the parched ground off the young and tender plants.—There seems to be a great difference between fields on which, last fall, old seed (viz. of 1835,) has been used, and such which have been seeded with new grain of the last crop, the former looking much more promising. Many farmers are ploughing their rye-fields down for oats or corn. Rye sowed in buckwheat stubbles will not come to any thing. Wheat I am happy to say looks better, generally; this would, it seems, warrant the inference that, the wretched state of rye fields is principally owing to the deficiency of the seed; because, what little wheat was raised last year was a perfect grain, which was not the case with rye. Thus far no traces of devastation by insects."

[From the Farmers' Register.]

REMARKS ON THE USE, VALUE, AND CULTURE OF SWEET POTATOES.

Columbia, S. C. January 5, 1837.

The interest on agricultural subjects seems to have much diminished of late in this part of the United States, and as much as we can perceive, in other parts also. When we have done with president making, and the meetings of abolition societies at the north and west, we can talk of nothing else than rail roads. It is all very well, each in its proper place; but it seems to me, that we neglect too much our own natural, noble pursuit, agriculture. Formerly, this country furnished many parts of Europe, and the West India Islands, with bread stuffs; but now Europe sends us flour, wheat, and other grains in great quantities, and *mirable dictu*, even hay. I shall not attempt to seek for the causes of this anomaly, lest it should lead me into the interminable speculations about banks, currency, abundance or scarcity of money, good, bad, and indifferent. It seems enough to say here, what few will dispute, that there is something wrong in all this. Leaving, then, these elevated and fruitful subjects of discussion, I shall take the humble task of making a few observations on the culture of the sweet potato.

At the 474th page of the number of your Farmers' Register, for the last month, is a piece signed S. Carter; this gentleman very reasonably disbelieves the assertions of some of his neighbors that the potatoe vines are poisonous to cattle; or at least they occasion them to swell. As for the latter effect, it is very possible that potatoe vines, as well as other rich succulent food, may, when eaten too greedily, or too abundantly, have that effect. It is, however, little to be feared that the season of the year when Mr. Carter speaks of cutting his vines for provender; for then, much of their succulence has dried up, and probably given place to highly nutritious matter. The saving of the vines of the potatoe for cattle is not practised in this state, that I know of; but it is not that they are not worthy of it; but because we are too careless in taking every advantage offered us by a bountiful climate. It may also be on account of the difficulty of curing these vines, so as to keep them in bulk. As to their nutritive quality, there are very few vegetables more wholesome and nutritious. Many years ago, I was informed on authority scarcely to be doubted, that in the island of St. Domingo, horses and mules were in many parts entirely fed all the year round on potatoe vines; and my informant assured me, that he knew a cultivator in the vicinity of Cape Francois, who made yearly about \$10,000, by sending every day, potatoe vines to the city, where they were bought for the exclusive food of horses, mules, and cattle. On the plantation or farm of this cultivator, the vines, and not the roots, were the chief object.

I am glad to have it also in my power to strengthen the authority of Mr. Carter, as regards his experiment of planting small potatoe roots, for the purpose of producing sprouts to be transplanted in due time, into the beds prepared for them. This is a practice much followed in this state, and many persons, I among the rest, think these sprouts produce much the best potatoes for the table. It is a method well suited to those

countries where the summer is too short to produce the potatoe in perfection by any other. The usual way is to prepare a nursery bed of small dimensions, in a warm and sheltered situation, by manuring it highly with stable manure; make drills in this bed at very short distances from each other, from five to ten inches, and in these drills put small potatoe roots, so close as to touch, and cover them lightly. This should be done earlier than the usual season for planting the crop; and for fear of frost, the seed may be covered with straw, leaves, or some such matters. A bed about four feet wide, and fifty or sixty feet long, will furnish sprouts enough to plant at least an acre of ground. It is necessary to have the beds ready to plant the sprouts, so as to take advantage of every shower of rain to transplant whatever sprouts are large enough, that is a few inches high. The nursery bed will soon again be covered with a new set to plant at the next suitable weather. Potatoes produced in this manner, are generally smooth and well formed, and the crop very abundant. Every facility afforded, for the extended cultivation of this invaluable root, is undoubtedly a great advantage; for it is nutritive and wholesome in a high degree. Many planters in this state feed their negroes for several months, exclusively on sweet potatoes, and during that period, they are all, young or old, healthy and fat. I have very little doubt but it might be advantageously cultivated for the manufacture of sugar, which it would probably produce in greater abundance than the beet; for not only can sugar be extracted from its read formed saccharine matter, but also from the starch which it contains in great abundance. This is, at least, well worth the trial.

I am, very respectfully, sir, your ob't servant,
N. HERBEMONT.

CULTURE OF THE PEACH.

WILMINGTON, April 5th, 1837.

GENTLEMEN:—I have cut the enclosed article from the Hamilton Intelligencer, and believing it highly important to the Public, request its publication in your paper. I believe it is from the pen of Judge Millikin, of Butler county, Ohio.

He is a practicing Physician, of age and much experience with regard to the subject on which he writes. I do not consider myself skilled in the science of Horticulture, but from observation, have long known the existence of the facts, for which the writer gives us philosophical reasons in their support.

B. HINKSON.

PEACH TREES.

I frequently hear complaints through the country, that it has become almost impossible to cultivate the Peach tree. It is likewise remarked, that the fruit does not possess the same rich flavour that it did some years ago. I believe it to be a fact, from my own observation, that we have no longer the pleasure of eating that delicious fruit, with all the fine flavours that it possessed in former times. There must be some natural cause for this failure. The climate has not changed. The sun has not ceased to shine. Rains and Snows descend as formerly. Why then does the Peach tree not live, flourish and fructuate?

I have frequently heard it remarked that the

peach tree would only do well in newly settled countries, where there was nothing but it and uncultivated fruits. The observation is correct in part, that it only does well in newly cultivated lands; but why the Orchardist and Farmer have not examined, or have not chemically inquired into the cause of the death of the tree and failure of its fruit, I know not. The only subject to investigate in this inquiry, is the situation the soil is in when the peach tree is thrifty and bears well, and the mode and manner of keeping the soil with the same constituent properties. We see that it is necessary that the sun should shine on the tree and fruit in order to give that flavour which we so much admire. If the tree is in the shade, we find that there is an excess of acid in the peach which renders it unpalatable—abounding with a watery fluid. It therefore becomes necessary, that at least a part of the day's sun should shine on the tree and its fruit, to concentrate the fluids. Further, we find that there is but one kind of soil that the peach tree will live in, for the ordinary length of time they will live in *congenial soil*, that has been under cultivation, any number of years (say 20 or upwards,) and that is a *reddish clay soil*, which holds a goodly portion of iron in solution. This fall I ate finely flavoured peaches from trees that were more than twenty years old. The trees had been planted and raised in the above described soil. In all new cultivated lands, we know that there is going on continually, a decomposition of vegetable matter, say from the leaves that have fallen from time immemorial, rotten timber, and the decaying of the root and stumps, &c. Our next inquiry will be, what effects are we to expect from this decomposition? One is, we know, that about old buildings and rubbish of all kinds, the earth is always saturated with *saltpetre* or *nitre*, held in solution (as both names are applied to the same article.) The earth being measurably saturated with nitre, the tree is favored with a nitrous dew; for nitrous acid will abound where nitre is held in solution. There must, also, be what Chemists call the "*Hydrogen Gas*," for they say that it has an active part to perform in the decomposing of vegetable substances, together with other gases. If it is a fact, (and I believe no one will deny it,) that those gases are necessary to be in abundance, or that the atmosphere ought to be surcharged with them, for the preservation and active growth of the tree and its fruit more than for any other fruit tree, all we have to do to, have our trees preserved to longevity, and have as rich, delicious fruit, as formerly, is to generate those gases which appear so essential. This may be done in the following manner:—When we have trees planted in a grassy soil, we ought to denude the root of the tree by taking off the top soil for some distance around the tree (say one yard) so deep as to destroy the root of the grass; fill that vacancy with leaves, rotten logs, chips, or tanner's bark. The latter, I think will answer, though I would prefer the chips, or rotten wood, to any thing else, for they will not produce so much moisture as tan bark, and as the ground where grass grows is measurably deprived of its nitre, and is cold, the chips or rotten wood will generate nitre, worm the ground, destroy the gluten in the soil, and keep the earth from freezing, thereby preventing

the trees from being killed by the frosts of the hard winters. By doing this, you have the soil for your trees in nearly the same situation to nurture them, that the soil of new cleared land is in. When trees are young—recently planted, and no sward of grass around them, I am clearly of the opinion that the tan bark will answer all purposes; that by the time the tree grows to any size, the bark will be decomposed so as to furnish a sufficient quantity of nitre and gases to answer all purposes for the benefit of the trees. I would advise a renewal of the chips, wood or bark, as often as necessary, to keep the roots warm in the winter and to prevent the growth of grass, always putting it on over the preceding coat. I would also advise the disuse of the pruning knife, after the transplanting of the trees. I would prefer letting them grow as Nature directs, for whenever the bark is broken, a gum exudes from it, impoverishes its juices, and the tree then begins to decay. To prevent worms and other insects from getting about the roots of the trees, sprinkle sulphur around the body on the ground, and cover it with a small quantity of earth, to prevent the wind from blowing it away. This should be done in the month of April. The bodies of the trees may likewise be painted with sweet milk and sulphur, which will effectually destroy all insects that wound the bark. When Catterpillars are troublesome to your fruit trees, take a panful of live coals, hold it under that part of the tree which they are upon, sprinkle sulphur or brimstone on the coals, and the fumes will entirely destroy them.

I have dropped a few hasty remarks—perhaps enough to induce some abler pen to do the subject justice.

Yours, &c.

AGRICOLA.

IMPORTANCE OF AGRICULTURE.

[From Mr. Hazen's Address to the Agricultural Society.] If the whole population of the Union should be collected upon New England, if her commerce and manufactures were then to be increased in still greater proportion than this increase of the population, from what shores, and by what navies should the provisions for her supply be freighted? England, on an extent of territory considerably less than that of New England, contains a population equal to that of the whole United States, at the last census. Yet such is her confidence in the resources and products of her own agriculture, that the importation of all such articles as they can supply is restrained.—How wonderful is the spectacle, when having provided for her own consumption, we see that narrow island, loaded and crowded with its millions, excelling the world in arts and commerce, imparting from the stores of its abundant fertility, grain for the food of the people scattered over this broad continent. What an illustration is this of what agriculture may be made to accomplish! Yet all the improvements that have made that country so productive, date back to a period little beyond the last half century. Before this time, land was looked upon as a source of power, rather than of revenue. The object of cultivation was a mere and very wretched subsistence. The only modes of cultivation, were those which descended, like their religion, and

their laws, from their ancestors. Such, however, since that time, has been the progress of improvement, it is now doubtful whether, with all the advantages of labor-saving machinery, the advances made in manufactures have much exceeded those made in agriculture. In the mean time, the increase of her population has only been equalled by that of the United States.—The stock to be maintained from the soil has multiplied in a still greater ratio. A greater luxuriance in the productions of the earth, the fruit of a richer culture, has added to the size and improved the symmetry of the domestic animals. At the beginning of the last century, the average gross weight of the cattle brought to market in Smithfield, did not exceed three hundred and seventy pounds, and that of sheep twenty-eight pounds; the present average weight of cattle in the same market, is eight hundred pounds, and of sheep eighty pounds. And the limits of improvement are by no means supposed to be attained. It is the opinion of practical men, best acquainted with the subject, that the raw produce of the island might well nigh be doubled without any greater proportional expense being incurred in the production.

Previous to 1762, no improvements had been made in the agriculture of Scotland. There was no rotation of crops; fallows were unknown; the process and the implements were alike wretched; neither turnips, clover, nor potatoes, had been so much as heard of, but corn followed corn in unbroken succession. To introduce the new systems, which have been attended with so much improvement, has been the work of a few names, as well entitled to the memory and honors of posterity, as any that are borne on the pages of history. It will be the dawn of a brighter day to this interest, when more adequate justice is done by public opinion, to the merits and services of its benefactors. The title of Father of Scottish Agriculture, conferred on Wm. Dawson, was an expression of public gratitude, scarcely less honorable to his countrymen than him. By the system of culture which he introduced, the production has grown to be twelve times greater than formerly, while the fertility of the soil is kept up with a proportionate increase of profits.

Is Lye a preventive of Smut.—Let those that doubt lye being a preventive for smut, try the experiment—or, if they have log heaps upon their fallows where there is a liability to smut, observe the crop, and sow smut where such heaps were burnt, if they can. One great fault in sowing wheat, farmers do not sow it thick enough, especially if sown late. People here are getting into the habit of sowing two and a half bushels to the acre, if sown late, be the soil what it may.—*Monthly Genesee Farmer.*

Important to Farmers.—The following method of relieving neat cattle when choked by a turnip or potatoe, has been tried by a farmer in this city, and found successful in every instance.—Pour into the throat of the animal from a junk bottle a pint or so of lamp or any kind of oil, at the same time rubbing the throat briskly with the hand. Immediate relief will follow.—*Gallatin (Tenn.) Union.*

THE HORSE.

The season is at hand when the attention of men should be directed to the subject of breeding horses. Every body in this country knows the usefulness of the Horse; "his praises have been often sung" in our time, and in the 39th chapter of Job, when speaking of the Horse, he says: "He paweth in the valley, and rejoiceth in his strength: he goeth on to meet the armed men. He mocketh at fear and is not affrighted: neither turneth he back from the sword. He saith among the trumpets, Ha, ha; and he smelleth the battle afar off, the thunder of the Captains, and the shouting."

The excellent qualities of this noble animal are not duly appreciated and understood by all. It is conceded that there are different races of the horse, with dissimilar qualities; all adapted to suit the various and important purposes of man,—some for the turf, long and short distances; some for heavy and slow draught; some for quick travel (stage and other carriage purposes;) and a peculiar species or breed which the people of England think excel all others for the hunting field. In fact, an able writer on the subject says that "all the varieties that human imagination can conceive have been produced by crossing and intermixing the different original stocks." If such be the fact, and I am inclined to believe it, what remains for breeders to do but to keep each class of horses separate and distinct, the one from the other. Thirty years experience and observation has taught me to believe that it is but folly and a throw-away of money when a common mare, of blood only for the draught or quarter speed, is bred to a horse of stock or blood of a four mile racer; such a course of breeding is well calculated to keep down the reputation of the best blood for long racing. If a colt to run a long distance is required, the dam as well as the sire must have the requisite qualities; as a proof of this assertion, let me ask how many four mile racers have you known produced from Janus mares; and how many quarter mile racers have you known produced from four mile mares without, or even with a cross of the Janus blood. Of the former class, so numerous at the present day, I scarcely know or read of one, (I mean a four mile runner,) but what is connected to the illustrious, imported sörrel Diomedé, the sire of the renowned old Sir Archie, both of which, and their descendants were capital four mile runners. Of the latter class, (a quarter race horse,) I do not know or read of one but what is a descendant of the imported Janus, and very often a cross of the imported Fearnought is found to exist, although remote.

In raising a Fox Dog would you mix the hound with the pointer? in raising the bird dog, would you cross the pointer with the bull dog? in raising the bull dog whose quality is to seize and hold fast, would you add a cross of the Terrier, (the rat catcher.) Such a course of breeding is very objectionable, and will apply with equal force, as well to the horse as to the dog. In selecting a horse to breed to, it is all-important that one should be chosen whose size and form are well calculated to improve such defects as the mare possesses, if any. The quality of each should also be regarded as worthy of notice; and

an effort made to remove such objections as may exist, if any.

It is too much the custom to breed from the stallion of some friend; in doing which, you breed for the benefit of your friend and neglect your own. Some breed to a horse because he is convenient, and in many instances because the season is given; whilst others who know but little of the history of the blood horse cannot estimate the true value of the different crosses.

To such I would say what the last General Assembly of North Carolina did upon the subject of applying the surplus revenue, after some of the members from the northern section of the state imprudently obtained leave of absence and quit the turf, "*Reconsider*"—and if the blood of your mare is sufficiently strong with four mile stock to justify it, you would do well to keep up the stock by a judicious cross upon that blood. If your mare is pretty much mixed with the blood of Janus, or any other stock whose blood is not highly distinguished for the long distance racer, you certainly would do well to try a horse of great speed for a short distance. If to raise a draught horse is your object, try to select a stallion of fine size, good gait, gentle qualities, good eyes, and large, lean, bony legs and good feet. By the above rule of breeding our northern brethren have obtained the best horses for their purposes that the world affords, some of which remarkable roadsters carry a sulky and driver in a brisk trot one mile in 2 minutes and 40 to 50 seconds. From 12 to 16 miles an hour in a trot is but common work.—*Milton Spectator*.—G.

THE COAST OF MAINE.

QUODDY HEAD.—DR. C. T. JACKSON, in his interesting report on the Geology of the State of MAINE, gives the following graphic description of the coast in the neighborhood of Quoddy Head, the eastern extremity of Maine:

"We measured the height of the precipice near the lighthouse, and found it 105 feet perpendicular above the level of the sea. The rocks more inland rise gradually until they attain an elevation of nearly 200 feet above the sea level. There is, perhaps, no other locality on the whole sea-coast of the United States where the mind is more affected by the sublimity of rock scenery than at this easternmost extremity of our country. Here are lofty precipices, like dark overhanging battlements, raised high in the air, amid the surf, bidding defiance to the storm. Nor does the changeful state of the atmosphere, with its ever-varying tint, from the bright morning or the rosy sunset to its thick mantling fogs, detract any thing from the beauty of the scene. There is sublimity even in the sound of the fog bell, as its warning note echoes among the dark caverns and rocky crags, giving notice to the unwary mariner, that he sails among dangers. In the space of a single day we experienced all the vicissitudes to which I have above alluded, and even the pelting of the rain did not damp our admiration of the scenery. To view advantageously this spot, let the traveller visit its rocky cliffs in a boat, and clamber a while over them at his leisure, and I am sure, if he has any love for natural scenery, he will be delighted with his excursion.

"I may also be allowed to make a few remarks on the lighthouse and fog alarm at this place, and of the dangers to which vessels are exposed on entering this passage. Immediately in the vicinity of Quoddy Head, and almost beneath its very brow, stands a dangerous, half sunken ledge, called, from its fancied resemblance to a ship, Sail Rock. This rock is one of exceeding danger to the unwary navigator, and not unfrequently proves fatal to a passing ship.

When a dense fog sets in, as happens very frequently, the navigator loses his way, having no landmark by which to steer, and is suddenly dashed upon the rock; his ship bilges, rolls over, and sinks, or is dashed to pieces by the surf, as it were, in a moment, before any assistance can reach him. To obviate this danger a lighthouse was erected, which consists of a lofty tower 90 feet high, and a fog bell was placed near it, to give alarm when the light could not be seen. When any vessel approaches these rocks she fires a gun, and is immediately answered by the bell, which is kept ringing until she has passed the danger.—Mr. Godfrey, the lighthouse keeper, informs me that he is required to ring the bell about one hundred days in the year, and especially during the months of June, July, and August.

"Many contrivances have been made to ring the bell by clock work machinery, but thus far all efforts of the kind have been unavailing; for the power required to wind up the heavy weight which moves the machinery was found to be fully equal to the task of ringing the bell by hand; and the clock work had not sufficient power to give forth its full tone. Unfortunately, it also happens that the note of the bell accords so perfectly with the ocean's roar, that in stormy weather it cannot be distinguished from it, even at the point of the greatest danger, the Sail Rock.—Some new contrivance must then be had recourse to, in order to prevent disasters. An ingenious friend has suggested that a loud whistle, blown by means of bellows, worked by machinery or horse power, might better answer the purpose of an alarm, since the shrill tone of such an instrument would reach far beyond that of any bell, and the power required to keep it in action would be much less. In locomotive steam engines a steam whistle is used, to give warning to the approaching train of cars, and is said admirably to fulfil its functions. It has also been suggested that a sharp toned bell might be placed on a tower or iron frame work, erected upon the Sail Rock itself, and the machinery kept in motion, by reciprocating rack work, moved by the rise and fall of the tide, a strong raft being moored close to it by heavy anchors and chains for the purpose."

Rural Economy.—A Hint to Farmers.—The following articles will grow and yield abundantly in New England, and will amply reward the toil of cultivation—*Mustard seed, Carraway do. Coriander do. Canary do. Hemp do. Palma christi or Castor oil do. Madder, Rhubarb.* The English mustard seed is preferable to the native American, and small quantities of it and the other seeds for sowing may be had of most of the grocers; it will command \$6 per bushel for any moderate quantity, to the extent of at least 4000 bushels. Its demand is increasing for the rising American mustard manufactories—the expressed

oil of it and hemp seed is much superior in smell to fish oil for lamps, and equal in any other respect.—The palma christi seed yields that excellent medicine, castor oil, which sells at one dollar (which is called) a quart bottle; it requires a warm situation and good soil; one gallon of seed yields two pounds of oil if properly managed.—Rhubarb now grows in many of our gardens and stands our winters in safety.—*Essex Register*.

Hollow Wooden Rollers.—Hollow wooden rollers may be constructed by most farmers, at a very moderate expense for iron work. Take three cast of fore wagon or other small wheels; place two of them six feet apart, and the other in the centre; fix an iron axle through the naves of each, so as to connect them together, and serve to draw by—upon these strong planks, cut very narrow, and bevelled at the edges, are to be firmly nailed lengthwise, until the roller is completely covered. It may then be mounted in the usual manner. If additional weight is required, as will generally be the case, it should be hung on the axle within the hollow. The draft of a roller is lessened by increasing its diameter—for it has been proved, that the same strength which is required to draw a roller of half a ton weight over a height of two inches, when the diameter of the cylinder is one foot, will suffice to draw rollers of 15 and 18 1-2 cwt. when their diameters are respectively two and three feet.—*Centreville Times*.

Morrill's patent Bee Hive.—We have been much gratified in examining a model of this ingenious and useful invention exhibited at Capt. Strandberg's hotel, by Mr. Marshall Bayliss. It is so constructed that any portion of the honey may be taken at pleasure without in the least degree disturbing the bees—for convenience, simplicity, clearness, and protection to those industrious and useful insects, it is most admirable. Every farmer should be provided with them, not only as an article of usefulness, but of profit. We are pleased to learn that Judge Chambers has purchased the patent right for Kent, and Mr. Bayliss has now only the right for Cecil to dispose of on this shore.—*Kent Bugle*.

Courteous.—The Delaware county Institute have forwarded to the Chester county Cabinet, a number of very fine sugar beets, raised the last season from seed of the best quality, imported from France. The beets have been distributed among the members of the cabinet for seed.—We have remarked with pleasure the spirit manifested by our scientific neighbors in Delaware county, in establishing an institute of science, and erecting a substantial building. And we doubt not, that the agricultural, manufacturing, mechanical and scientific interests of the county will be greatly benefitted by their laudable efforts. Our cabinet are always happy to receive, and will always cheerfully reciprocate, such marks of attention and kindness from societies or individuals.—*Westchester (Pa.) Village Record*.

Bitter Root.—The destructive effect of this disease on the fruit of our orchards, has for many years past, been a subject of general complaint. The respectable source from which the

following recipe has been obtained, induces us to advise our readers to make a trial of its efficacy. The gentleman to whom we are indebted for it, and whose respectability and veracity may be confidently relied on, used the prescription repeatedly, and with uniform success, for the destruction of caterpillars; last year he tried it for the same purpose on some trees, the apples on which had before been rendered useless by the Bitter Root; and he had the gratification of finding it not only effectual for the purpose designed, the destruction of the Caterpillars, but that the fruit of the succeeding summer was perfectly free from the disease to which it had so long been subject and by which its value had been entirely destroyed. A single experiment, it is true, is not sufficient to establish the general efficacy of the remedy, but the success of it is amply sufficient to induce its repetition; and we hope many of our readers will do so next spring, and apprise us of the results.

Receipt to destroy Caterpillars, and to cure the Bitter Root.—In April or May bore a hole with a half inch auger, about half way through the tree, put into it a teaspoonful of the flour of sulphur, plug the hole up tight with a wooden pin. The tree will not be injured and the Caterpillars will be destroyed and the bitter root cured.

An ancient Gardener.—The Lowell Courier states that Mr. Martin Burrige, the gardener of the late Hon. Timothy Bigelow, deceased, and now the gardener of the much respected widow of the deceased, Madame Bigelow of Medford, was returned to serve as a juror, but was excused by the court from serving, on account of the earnest necessity of his being at home in this spring time of his plants and flowers. The garden and green-house of Mrs. Bigelow have been under the care of Mr. Burrige for more than thirty years, and it is a remarkable fact that, during all that period, he has never been absent from it, and never lost a day's work from sickness, in his life.—*Boston Courier.*

Bee Moth.—A friend informs us, he has discovered by experiment, that dry comb laid about hives, forms a trap for the bee-moth, by attracting the miller, which deposits its eggs in the comb, where they are easily destroyed. A piece of comb which he placed for the purpose, was completely filled with the moths.—*West. Tiller.*

To make Paint without White Lead or Oil.

- 2 quarts skimmed milk
- 2 ounces fresh slacked lime
- 5 pounds whiting.

Put the lime into a stoneware vessel, pour upon it a sufficient quantity of milk to make a mixture resembling cream; the remainder of the milk is then added, and lastly, the whiting is to be crumbled and spread on the surface of the fluid, in which it gradually sinks. At this period it must be well stirred in, or ground as you would other paint, and it is fit for use. There may be added any coloring matter that suits the fancy. It is to be applied in the same manner as other paint, and in a few hours it will become perfectly dry. Another coat may then be added, and so on until the work is completed. This paint is of great

tenacity and possesses a slight elasticity which enables it to bear rubbing with a coarse woollen cloth without being in the least degree injured. It has little or no smell when wet, and when dry it is perfectly inodorous. It is not subject to be blackened by sulphurous or animal vapors, and is not injurious to health. All which qualities give it a decided advantage over white lead.

The quantity above mentioned is sufficient for covering 27 square yards with one coating.

Silk Culture.—We learn from the Frederick Examiner, that Dr. W. D. Jenks, of that place, has planted this spring, in the vicinity of Frederick, twenty thousand white mulberry trees, of the growth of one year, for the purpose of feeding silk worms; and that he proposes to plant a like number of trees, for the same purpose, next year. This species of business (says the Examiner) has lately attracted much attention in this state and elsewhere, and promises, even if the calculations of those who are acquainted with the subject be much too high, to be very profitable.—*Balt. Patriot.*

To the Ladies.—It is said if you fill flower-pots about half full of quick lime, and cover over this a good mould, the flowers may thus be obtained in a very short time, and all the season. The earth should be kept slightly moistened, and pressed down whenever it rises by the swelling of the lime.

HOW TO REMOVE A POTATO FROM THE THROAT OF A CHOKING COW.—Fasten the head of the animal, standing, firmly to a post. Let a strong man with his hand, completely stop the windpipe by his grasp just above the potato, and keep a firm hold for a minute or two, until the animal gives an involuntary spring forward. Should the fist experiment not succeed, let more be made. Reason—the wind obstructed in its passage through the wind-pipe, expands or largely opens the other pipe below the potato, and when the animal makes a violent effort, the potato goes downwards. This is a fact that a few do know. I had a fatting cow thus choking with a potato. After trying in vain several methods commonly known, I sent for a butcher to kill the cow at once. He came, but instead of killing, in a few moments relieved the creature in the manner I have described; and informed me that in the same way he had saved a number of cattle before.

A FARMER.

Yankee Far.]

AXIOMS.—Benjamin F. Station, Esq. in a letter to the Editor of Farmers' Register, says: "I am pleased that, in connexion with others, you have succeeded in establishing some highly important truths which were formerly not known, or entirely discredited, (it is lamentable that many should still be so slow as not to embrace them,) but are now received among the more intelligent cultivators of the soil, as Agricultural axioms, about which all doubt and discussion may cease; axioms which may be expressed in few words, and on the correctness of which any one who chooses, may immediately proceed to act. A few of these are:

That deep ploughing never need be dreaded.

A small Farm, well conducted, is a source of greater revenue than a large one indifferently managed.

It would be a vast amount of saving to the whole community, if every private owner were required to keep his stock from committing depredations on his neighbor's, instead of imposing the onerous burden upon them.

The profits of Agriculture (other things equal) are in proportion to the attention paid to manuring; that is, as is the extent of the latter, so will be that of the former.

The Corn Crop, with the stalk cut up from the ground entire, at a much earlier period than has usually been practised, is worth about double what it is, when gathered in the old way.

Prepared food of some kinds, and for some animals, will go nearly, if not quite, twice as far, as that which is given in a raw and natural state.

The raising of Tobacco need not impoverish the land, but it is only to the undue and disproportionate space that is allotted to this staple commodity that the mischief it is said to have produced, is attributed."

CURE FOR THE DYSENTERY.

A gentleman of New York (whose name is known to the editors of the Halcyon Luminary,) was, for several months, afflicted with this disease, without obtaining the least relief from three physicians, who constantly attended him, and who finally relinquished all hope of their patient's recovery. At this awful crisis, he one morning dreamed that he was standing near the New Market, where his attention was attracted by a company of soldiers, conducting a prisoner, as he understood, to the place of execution. As the escort passed the place where he stood, the victim (who was dressed in white) accosted him, and mentioned that he was in possession of a most important secret, which he wished to communicate for the good of mankind, before he was launched from this earthly stage of existence into a boundless eternity. It was a cure for the dysentery, and the following is the recipe:

"Take one pint of good vinegar and half a pound of loaf sugar, and simmer them together a convenient time, in a pewter vessel with a pewter cover. Let the patient drink of this, and during the day a small quantity at a time, either clear, or accommodated to the palate by diluting it with water."

This secret being communicated, the procession moved on, and the dreamer awoke. Although he treated this as a mere chimera of the imagination, incited by disease and despondency, he still felt strongly induced to try the experiment. He did try it, and was restored to perfect health in one day, and then recovered his strength with a rapidity which astonished both himself and friends. Many persons of the first respectability (whose names can also be learned on application to the office of the Luminary,) to whom he communicated the fact, have since been relieved from the greatest distress and weakness, to which this complaint had reduced them, and cured in the same sudden and astonishing manner. This simple remedy, so potent in its effects, is remarkably pleasant to the taste, more agreeable than lemonade, and on being swallowed, seems to reach the seat of the disease with the velocity of electricity.—*Halcyon Luminary.*

Cheek's Threshing Machine.—Our attention has been drawn by a subscriber to an invention by a Mr. Cheek of this State, denominated a "Threshing and Fanning Machine, Cutting Box and Corn Sheller." The Editor of the Bowling Green Gazette, who has seen it, thus speaks of it:—

"A more complete and useful piece of machinery, of the kind, we venture to say has never been invented by man. If to produce two blades of wheat, where only existed one before, is sufficient to give the author of the act the title of a benefactor of the human family, how richly deserving this title is this enlightened and inventive genius, Mr. Cheek, for he has invented an almost perfect piece of machinery, by means of which and the labor of two hands, at least one hundred barrels of corn may be shelled in a day—or by the same force, many acres of wheat, rye, or oats, may be thoroughly threshed and winnowed, or stalks of oats and whole fields of corn stalks cut up in one 12th of an inch in length. This machine may enable farmers to prepare their grain for market almost at a moment's warning, and will enable them to cut their grain and find their stock at comparatively a very small expense. We understand that any farmer can obtain the benefit of this most invaluable machine for one hundred dollars. We hope that the enlightened inventor will be handsomely rewarded for the invention.—*Nashville Rep.*

We understand from the Delaware Journal that the Silk Company of that State have purchased 150 acres of land, for the purpose of cultivating the mulberry—we are a step before the Delawareans. The Talbot and Queen Ann's Companies have purchased lands and planted trees; the latter has already manufactured some silk of a pretty good quality. As yet no company has been formed in Dorchester, but there also the silk mania is raging. We were presented a sample of handsome sewing silk manufactured by Mrs. Doctor Nicols of that county, and even superior to that manufactured by the Queen Ann's Company.—*Easton Gaz.*

EXTRAORDINARY CALF.—Mr. S. SMITH, an enterprising breeder of blooded cattle in Fayette county, Kentucky, lately sold to Mr. MASLIN SMITH a short horned bull calf, 11 months old, weighing one thousand and forty-five pounds! This is said to be the largest animal of the kind of his age ever raised in this country. Its beauty of proportion is not to be exceeded.

From the Montrose Volunteer.

PLOUGHING AN AMUSEMENT IN ILLINOIS.—The following paragraph is an extract from the journal of a traveller in the West, who it seems has handed over his notes to the N. Y. Spectator, (from which we copy) for publication. That there are many fine plough fields in Illinois, we never doubted; but that ploughmen there could ride, fiddle and plough at the same time, is a fact, (if fact it be) entirely new to us. We have before now followed the plough among the stones and roots of our own hills, and been forced to dance right merrily to keep the right end uppermost; but as for accompanying the plough with a violin—why, it is a thing never dreamt of—in

fact, such an instrument could scarcely be kept safe in a ten acre lot where the plough was going! Yet the Susquehanna hills, rough as they are, are preferable in several respects, to the much written about and long talked of prairies of the great West. "The roll of the prairies is so free from stumps and stones that the plough, after the first furrow, generally needs no guide; prepared with a seat for the driver, graduated by a pair of wheels, and drawn by an experienced team, it cuts a furrow of equal thickness, and will pursue the even tenor of its way for miles without obstruction. A gentleman informed me that he had seen drivers seated on their plough, playing their violin, while the oxen and plough kept their regular motion, through long furrows, apparently without any attention from him. I have often seen them, although having sole charge of the work, so intent upon a book or newspaper, as to appear utterly regardless of the team or the implement it drew, except at the commencement and termination of a furrow."

Sheep.—Samuel Dawane of Woodstock, communicates to the Editor of the Courier the following information, which we copy for the benefit of those concerned.

I have kept Sheep for fifty years, and never knew of the ailment, which for want of a known name, I called the *Strechies*, until the introduction of the Merino Sheep; since introducing them into my flock, I have had more or less sheep every winter troubled with that complaint. The sheep so attacked, stretched themselves to the utmost, lie down and rise up often, refuse all food, and generally die in from four to eight days. The complaint is most frequent in hard winters, when they are kept long from the ground, but never (to my knowledge) occurs in the season of grass—hence I was led to think it was caused by the bowels not being sufficiently open—if so the remedy was at hand. The last winter, being long and severe, I had a number attacked with the complaint. In every case I turned down them, a table-spoonful of Castor Oil, and in every instance they were well, and eating their fodder in a few hours, and I lost not a single sheep. This winter I have had one attacked, and applied the remedy with the like effect. Should others have sheep so attacked, I advise them to try the remedy, and I doubt they will find the like benefit.—*Gen. Far.*

✂ The editor of the Petersburg (Va.) Intelligencer, being anxious to resume the practice of the Law, would dispose of the Establishment of the Petersburg Intelligencer to any gentleman disposed to purchase. To any such, on application either in person or by letter, full information will be promptly given in reference to the circulation of the paper, its advertising and job patronage, its supply of Type, Presses, Office Furniture, &c., and also as to the terms on which it may be purchased. Without descending to the indelicacy of puffing off the Establishment, the Editor will say that it possesses advantages and holds out inducements well worthy the attention of any

gentleman who has the talents and the means to conduct a newspaper with energy and spirit.

BLIGHT IN FRUIT TREES.

To the Editor of the Farmer and Gardener:

Mr. Editor.—Observing in your valuable paper an account of a pear tree being benefitted by boring a hole in it, I would also mention the good effects of boring an apple tree: having purchased a farm the last year I took the farmer who lived on the place to examine the orchard; he pointed out a fine large tree, and said it never bore fruit to ripen, but always fell when about half ripe. He showed me a hole his neighbour had bored some months before through the tree, by way of experiment; he said it looked thrifty, and thought it would hold its fruit. I took particular notice of this circumstance, as it was new to me. I was much pleased to find the fruit ripened well; was very large and beautiful in appearance. I consider it now the finest tree in the orchard: had it not been for the hole bored through it, in all probability it would have been cut down as useless. This experiment may be of use to others; if you think proper please publish it, and oblige

S. C. Philadelphia.

A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to

EDW. P. ROBERTS,
ap 25 Baltimore, Md.

A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 14 hands and half inch, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to

EDWARD P. ROBERTS,
Ap. 18. 4t. Baltimore, Md.

PATENT HORSE SHOES,

Made of best refined Iron, and every shoe warranted—Any failing to render the most perfect satisfaction will be received back, and the money paid for the same refunded. A constant supply for sale by

THOMAS JANVIER, Agent,

87 Smith's wharf.

P. S. Henry Burden of Troy, N. Y. has obtained letters patent from the government of France, granting him the exclusive privilege of manufacturing horse shoes by his newly invented machines. nov 22 3m

AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each,

Also ROBERTS' SILK MANUAL, a work of general utility, comprising all the information necessary to be known in the culture of the Mulberry and growth of Silk.

The above works are offered for sale, at the office of the FARMER AND GARDENER, North-east corner of Baltimore and Charles-streets, Baltimore, Md. April 18, 1837.

20,000 MORUS MULTICAULIS TREES.

The subscriber has received the first parcel of an invoice of 20,000 Morus Multicaulis trees, which he offers for sale on pleasing terms for cash. They are warranted genuine, and if taken in their original packages bargains may be expected.

EDW. P. ROBERTS,

March 7. 4t.

Baltimore, Md.

BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY

	PER	FROM	TO
BEANS, white field,	bushel.	1 25	1 40
CATTLE, on the hoof,	100lbs	8 50	10 00
CORN, yellow	bushel	94	95
White,	"	90	92
COTTON, Virginia,	pound	17	19
North Carolina,	"	—	—
Upland,	"	—	—
Louisiana 20a21—Alabama	"	—	—
FEATHERS,	pound.	50	52
FLAXSEED,	bushel.	1 37	1 50
FLOUR & MEAL—Best wh. wh't fam.	barrel.	11 00	12 00
Do. do. baker's,	"	—	—
Do. do. Superfine, ex.	"	8 75	9 00
SuperHow. st. in good de'd	"	9 00	—
" " wagon price,	"	8 25	8 50
City Mills, super,	"	8 00	—
Do extra,	"	8 75	—
Susquehanna,	"	9 00	9 50
Rye,	"	6 50	6 75
Kiln-dried Meal, in hhds.	hhd.	—	—
do. in bbls.	bbl.	—	—
GRASS SEEDS, red Clover,	bushel.	6 00	7 75
Timothy (herds of the north)	"	3 00	3 50
Orchard,	"	—	3 00
Tall meadow Oat,	"	—	2 75
Herds, or red top,	"	—	1 25
HAY, in bulk,	ton.	16 00	20 00
HEMP, country, dew rotted,	pound.	6	7
" water rotted,	"	7	8
Hogs, on the hoof,	100lb.	—	8 00
Slaughtered,	"	—	—
Hors—first sort,	pound.	17	—
second,	"	13	—
refuse,	"	12	—
LIME,	bushel.	35	37
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS,	"	43	47
PEAS, red eye,	bushel.	—	—
Black eye,	"	1 12	—
Lady,	"	—	—
PLASTER PARIS, in the stone,	ton.	4 87	—
Ground,	barrel.	1 62	—
PALMA CHRISTA BEAN,	bushel.	—	—
RAGS,	pound.	3	4
RYE,	bushel.	90	—
Susquehanna,	"	—	none
TOBACCO, crop, common,	100lbs	3 00	3 50
" brown and red,	"	4 00	6 00
" fine red,	"	8 00	10 00
" wrappery, suitable	"	—	—
for segars,	"	—	10 00
" yellow and red,	"	8 00	10 00
" good yellow,	"	8 00	16 00
" fine yellow,	"	12 00	16 00
Seconds, as in quality, ..	"	—	—
" ground leaf,	"	—	—
Virginia,	"	4 50	9 00
Rappahannock,	"	—	—
Kentucky,	"	4 00	8 00
*WHEAT, white,	bushel.	1 50	165
Red, best,	"	1 50	165
fair to good 100a130, inferior	"	40	100
WHISKEY, 1st pf. in bbls.	gallon.	36	38
" in hhds.	"	—	no sale
" wagon price,	"	—	30
WAGON FREIGHTS, to Pittsburgh, ..	100lbs	2 00	—
To Wheeling,	"	2 25	—
Wool, Prime & Saxon Fleeces, ..	pound.	50 to 60	30 32
Full Merino,	"	45 50	26 30
Three fourths Merino,	"	40 45	24 26
One half do.	"	36 40	22 24
Common & one fourth Meri.	"	33 36	20 22
Pulled,	"	36 38	24 26

* German red 1 60. Stock of foreign on hand 50,000 bushels; market unsettled, most of it stored.

* A sale of 13,000 bushels damaged wheat was sold on Friday last, prices varying from 40 to 100 cents; of the large stock of wheat in store unsold, a large proportion is damaged.

Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

BALTIMORE PROVISION MARKET.

	PER.	FROM.	TO.
APPLES,	barrel.	13	—
BACON, hams, new, Balt. cured, ..	pound.	17	18
Shoulders,	"	11 1/2	12
Middlings,	"	do	do
Assorted, country,	"	—	9
BUTTER, printed, in lbs. & half lbs.	"	25	31
Roll,	"	23	28
CIDER,	barrel.	—	—
CALVES, three to six weeks old, ..	each.	5 00	7 00
Cows, new milch,	"	35 00	50 00
Dry,	"	10 00	13 00
CORN MEAL, for family use,	100lbs.	—	2 25
CHOP RYE,	"	2 25	2 37
EGGS,	dozen.	18	25
FISH, Shad, No. 1, Susquehanna, ..	barrel.	—	—
No. 2,	"	—	—
Herrings, salted, No. 1,	"	3 00	—
Mackerel, No. 1, ————No. 2	"	10 00	—
No. 3,	"	—	6 75
Cod, salted,	cwt.	—	4 00
LARD,	pound.	11 1/2	12

BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	U. S. Bank,	par	VIRGINIA.
Branch at Baltimore,	do	do	Farmers Bank of Virgin. 2a2 1/2
Other Branches,	do	do	Bank of Virginia,
MARYLAND.			do
Banks in Baltimore,	par	do	Branch at Fredericksburg do
Hagerstown,	2a	do	Petersburg,
Frederick,	do	do	Norfolk,
Westminster,	do	do	Winchester,
Farmers' Bank of Mary'd, do	do	do	Lynchburg,
Do. payable at Easton,	2	do	Danville,
Salisbury, 1 per ct. dis.	2	do	Bank of the Valley,
Cumberland,	2	do	Branch at Romney,
Millington,	do	do	Do. Charlestown,
DISTRICT.			Do. Leesburg,
Washington,	3a	do	Wheeling Banks,
Georgetown,	3a	do	Ohio Banks, generally
Alexandria,	3a	do	New Jersey Banks gen.
PENNSYLVANIA.			New York City,
Philadelphia,	1a	do	New York State,
Chambersburg,	1	do	Massachusetts,
Gettysburg,	do	do	Connecticut,
Pittsburg,	3a3 1/2	do	New Hampshire,
York,	2	do	Maine,
Other Pennsylvania Bks. 1 1/2 a2	do	do	Rhode Island,
Delaware [under \$5]	3a4	do	North Carolina,
Do. [over 5]	2a 1/2	do	South Carolina,
Michigan Banks,	10	do	Georgia,
Canadian do.	10	do	New Orleans,

SPANISH JACKS.

The subscriber has for sale five Spanish Jacks, imported in 1836. They are all young, and certified to be proved breeders. They are of good size, being from 52 to 55 inches in height, stout built and healthy: colors white and gray.

The exportation from Spain of Jacks of this quality and breed is by law strictly prohibited; but the near approach of the army under Gen. Gomez last fall to Malaga, caused the shipment of these Jacks, among other valuable property, from that port. Considering these circumstances, it is improbable that another opportunity of procuring such Jacks will occur. These will be sold for from \$1,000 to \$1,500 each, if immediately applied for, but if not sold soon, they will be placed at service for the season at hand.

Also, a young Jack, bred in this country from first rate stock, gray, two years old, and of good promise. Price \$500.

Also, several fine JENNETS, some of them in foal to a Maltese Jack, 14 hands high.

Also, a very fine improved Durham short-horn BULL, purchased at Col. Powell's sale last November. He is about eighteen months old, nearly all red, and has a perfect pedigree. Price \$300. Apply to

J. J. HITCHCOCK,

Agricultural Agent, No. 5 South Fifth street, Philadelphia.

FARMERS' REPOSITORY,

Pratt street near Hanover street.

The subscriber is the Original Inventor, Patentee, and Sole-Proprietor of the Cylindrical straw Cutter, so favorably known to the public; he challenges its equal for chaffing long forage of any and every kind, it is simple, durable, cuts with great facility, and is perfectly adapted to power. There are four sizes of them, from 11 to 20 inches broad, although they may all be worked by manual labor, yet the two largest are best calculated for Power Machines; price from \$30 to 95.

He keeps on hand a great variety of PLOUGHS and almost every other useful implement for agriculture, the most prominent of which are Patent Lime Spreading Carts, do Threshing Machines, do Wheat Fans, Corn Shellers, Cultivators, superior Pennsylvania made Grain Cradles, &c also trucks for use of Merchants. Has attached to his Improvements an extensive Iron Foundry in daily operation, and can furnish almost any kind of Iron Casting at short notice. Also tilt hammer, Lathes, &c. running by Steam Power, which afford him great facilities for Manufacturing Machinery, Screw Bolts and the like.

He has a large Stock of raw Materials on hand of the best quality, his workmen are men of experience the most of whom have been several years in his employ and he is a practical machinist himself. Under these circumstances, he confidently solicits the public patronage, pledging himself to use every exertion to render entire satisfaction to his patrons. He keeps constantly on hand Ploughs and Machine Castings for sale by the single piece, or to vendors by the ton, to whom a liberal discount will be made on Ploughs and Straw Cutters, when taken by the quantity. He likewise deals in Grass Seeds and Seed Grain, has in store superior Orchard Grass and Herds Grass Seed.

N. B. Also on hand superior GARDEN SEED, grown and warranted by Mr. D. Landreth of Philadelphia, on retail only. Wholesale orders will be received and forwarded on to Philadelphia, by the subscriber for execution.

LIME-SPREADER.

J. S. EASTMAN, PRATT-STREET,

Has now finished several of the above machines. The price is fixed as follows:

For the machine complete,	\$100
Do exclusive of the wheels, shafts and axle, ..	60
For applying the machinery to a common cart ..	45
For the machinery alone	40
Including the patent fee in each case.	fe 28 3t

GAMA GRASS ROOTS.

JUST received and in fine order, 15,000 GAMA GRASS ROOTS. This grass is particularly adapted for soiling, bears cutting every fifteen days, and of course the product is immense. Price per 100 roots, \$2.

ROBT. SINCLAIR, JR. & CO.

mh 7

Light, near Pratt street wharf.

MORUS MULTICAULIS SEED.

THE undersigned offers for sale the seed of genuine Morus Multicaulis, imported from France by Smith and Sons, New York, and warranted the growth of 1836. Said seed is put up in half oz papers, and will be sent per mail free of charge to any part of the U. S. on the receipt of \$3 for one, or \$5 for two papers. Notes of all solvent banks received in payment. This seed is warranted to produce the genuine Chinese variety, and the money in all cases will be refunded on satisfactory proof to the contrary. Short directions for culture furnished each order.

SETH WHALEN, P. M.

Feb 1837—28

Whalen's store, New York.

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Notice of Mr. Ronaldson's card—the Card—varied character of our climate—prospects of the growing crops—culture and use of the sweet potato—culture of the peach tree—importance of agriculture—lye a preventive of smut—method of relieving choked animals—breeding of horses—curiosities of the coast of Maine—hint to farmers—hollow wooden rollers—Morrell's bee-hire—agricultural courtesies—cure for the bitter root—ancient gardener—remedy for the bee-moth—paint without lead or oil—silk culture—method of raising pot plants—how to remove a potato from a choking cow—axioms in agriculture—cure for the dysentery—silk company in Delaware—extraordinary calf—ploughing in Illinois—how to keep sheep—Petersburg Intelligencer for sale—blight in fruit-trees—advertisements, prices current, &c.

